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## ABSTRACT

Findings from a study that examined state mechanisms for ensuring the maintenance of public school buildings are presented in this report. Methodology involved: (1) a 50-state survey of state school facility programs, which elicited a 43 percent response rate; and (2) a review of New Jersey state programs, for which interviews were conducted with 13 state administrators. Findings indicate that although the review mechanisms for New Jersey school facilities are similar to those of other states, they do not adequately address the building maintenance issue. Specifically, New Jersey often defers school building maintenance, has no state requirements for systematic evaluation or criteria, and fails to provide sufficient technical assistance. Four approaches are suggested to bridge the gap between state planning and funding: (1) include key activities and make better use of existing mechanisms; (2) develop state initiatives to protect local budgets; (3) establish stronger maintenance requirements for state funding and new building construction approvals; and (4) address deferred maintenance through "steady-state" funding and budgeting. Recommendations for the New Jersey legislature are also outlined. The appendices contain the survey questionnaire and data matrices. (Contains 28 references.) (LMI)

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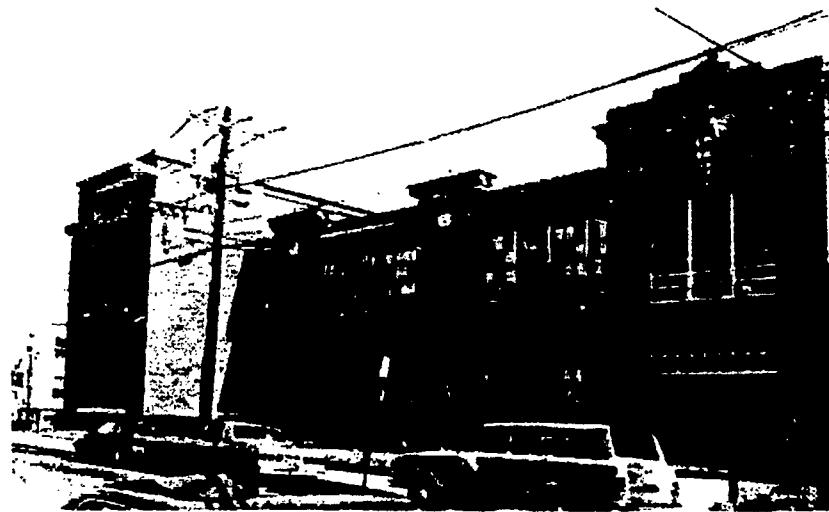
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## APPROACHES TO SCHOOL MAINTENANCE:

*Assuring the Future Life of School Buildings in New Jersey*

A Study for the  
New Jersey  
Commission on Business Efficiency of the Public Schools



ARCHITECTURE AND BUILDING SCIENCE  
NEW JERSEY INSTITUTE OF TECHNOLOGY

November 1, 1990

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# **Approaches to School Maintenance**

*Assuring the Future Life of School Buildings in New Jersey*

**November 1, 1990**

**A Study  
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**The New Jersey Commission on  
Business Efficiency of the Public Schools  
Trenton, New Jersey**

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Senator Matthew Feldman	Dr. Cummings A. Piatt
Assemblyman Joseph V. Doria, Jr.	Mr. Archie Greenwood
Assemblywoman Dolores G. Cooper	Dr. Peter Mazurak

William R. Schmidt, Commission Secretary  
Dennis R. Smeltzer, Commission Administrator

## Acknowledgements

This study was developed with the assistance of many people throughout the State of New Jersey from the Department of Education, local school districts and the academic community. In particular, we wish to acknowledge several individuals who made this study possible. Within the New Jersey Department of Education, we would like to thank Mr. Robert Swissler, Assistant Commissioner, Division of Finance; Ms. Judy Savage, Director of Research, Division of Finance; and Mr. Ken Stevenson, former Director of the Bureau of Facility Planning Services.

We would also like to thank those superintendents and administrators from local school districts and county offices interviewed for this study. These often candid discussions gave a better view of the dilemmas and problems which confront the local school administrator in the attempt to adequately maintain school buildings. To protect the anonymity of this report, these individuals are not named here.

State directors of forty three states responded to our study questionnaire. We would like to thank them for taking the time to respond and to answer our ongoing questions. In particular, we would like to thank the following state facility directors: Dr. James Schroeer, Florida; Dr. Frank Cloer, Georgia; Mr. Duwayne Brooks and Dr. Henry Heydt (Assnt. Director), California, and Dr. Yale Stenzler, Maryland. Without the assistance and cooperation of these directors, this report would have been far more difficult. We greatly appreciate the time that they took out of their busy schedules to further this work.

The Commission on Business Efficiency of the Public Schools acknowledged the need for this study and supported our efforts to further understand the issues. We would especially like to thank Mrs. Laurie Fitchett, Vice Chair of the Commission and the sub-committee members: Dr. Cunnings Piatt, Dr. Peter Mazurak, and Mr. Archie Greenwood. As well, we would like to thank Mr. William Schmidt, Commission Secretary.

The report was developed at the New Jersey Institute of Technology with the assistance of two of our graduate student assistants, Maria Petrakaki and Leslie Knox, who willingly assisted in graphic work at the most critical moments.

And finally our thanks to Mr. Dennis Smeltzer, Commission Administrator. As staff person for the Commission, Dennis assisted on many levels in the conceptualization and development of the report.

This study was funded by the New Jersey Commission on Business Efficiency of the Public Schools.

## **Executive Summary**

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**ARCHITECTURE AND BUILDING SCIENCE  
NEW JERSEY INSTITUTE OF TECHNOLOGY**

# **Approaches to School Maintenance: Assuring the Future Life of School Buildings in New Jersey**

A Study for the  
New Jersey Commission on Business Efficiency of the Public Schools  
By the Architecture and Building Science Group  
New Jersey Institute of Technology

November 1, 1990

## **Executive Summary**

*"Neglect of maintenance can nevertheless affect public health and safety, reduce productivity of public employees, and cause long term financial losses as buildings wear out prematurely and must be replaced."*

*Building Research Board of the National Research Council,  
Committing to the Cost of Ownership, 1990.*

This report documents a study by the Architecture and Building Science Group at New Jersey Institute of Technology (NJIT) on approaches to state mechanisms to assure that public school buildings are adequately maintained. The study by NJIT has been conducted at the request of the New Jersey Commission on Business Efficiency of the Public Schools. The study was developed with the cooperation and assistance of the New Jersey State Department of Education.

Inadequate maintenance of school buildings in the State of New Jersey has been cited as a problem affecting the long term expense of school facilities and the adequacy of public education. An estimate of the total outstanding school construction need for New Jersey, adjusted for inflation, is approximately \$1.8 billion (taken from aggregate data of the 1985 State Department of Education Facility Master Plans). Of this amount, approximately \$600 million is needed for capital improvement of existing facilities, much of which can be attributed to deferred maintenance. While this figure reflects deferred maintenance requiring capital expenditure, it does not include unmet current maintenance needs. Further, the estimates will most likely increase when analysis of the 1990 Facility Master Plan data is completed later this year.

The appropriate combination of sufficient funding, planning, and monitoring is necessary to insure that public school buildings are adequately maintained. Many states, including New Jersey, are currently attempting to address this issue.

This study was initiated with the following goals: (1) to seek precedents from school facility programs in other states; (2) to identify key issues with the current New Jersey school facilities system; and (3) to develop approaches to improve maintenance in public school buildings in the State of New Jersey. The recommended approaches focus on methods of achieving an appropriate level of school maintenance through effective and efficient management. The three parts of the study are described as follows:

- Part One:** **Fifty State Survey of State School Facility Programs** that reinforce, monitor, and insure that public school buildings are adequately maintained.
- Part Two:** **A Review of New Jersey State Programs** for funding, monitoring, and technical assistance relating to the maintenance of school buildings.
- Part Three:** **Recommendations for Programmatic Approaches** to insure appropriate school maintenance for implementation by the State of New Jersey.

### **New Jersey School Facilities: A Need to Coordinate Procedure and Offer Technical Assistance**

The study reviews New Jersey's school facility system including building code compliance requirements, planning mechanisms, and funding for school building maintenance. The study has found that currently the maintenance of public schools in New Jersey is primarily a responsibility of the local education agency (LEA). A State school building maintenance "program" does not exist. However, programs are in place that affect the maintenance efforts of local school districts.

Interviews were conducted with ten local school district superintendents and/or facility managers; three county superintendents or school business administrators; and the Division of Finance, the Bureau of Facilities Planning Services, and the Division of County and Regional Services of the New Jersey State Department of Education. Of the ten local districts, three are considered urban, four suburban, and three rural. The districts and counties were carefully chosen in collaboration with the Commission on Business Efficiency of the Public Schools to represent a cross section of socio-economic groupings and district sizes. The responses to specific questions during these interviews have been recorded in five matrixes. The interviews represent anecdotal information that does not allow for a statistical analysis as the survey was limited to ten districts and three counties.

As currently employed by the New Jersey State Department of Education, requirements and procedures for monitoring, funding, and planning are similar in form to other states with active facility programs such as Florida, Maryland, Georgia, and Rhode Island. However, these requirements and procedures do not work together as a system and do not produce a focused effort in regard to school maintenance. The existing tools could be used more effectively to assist the LEAs in addressing their facility needs while protecting New Jersey's public investment in school buildings.

## **An Appropriate Coordination of Effort to Meet Facility Needs: A State and Local Partnership with Technical Assistance**

The State required school facility planning documents, (1) the five-year Facility Master Plan and (2) the long-term maintenance plan, along with the five-year monitoring cycle, review school facility conditions and management procedures to some degree. However, these mechanisms serve a "watchdog" function rather than a pro-active technical assistance role. Technical assistance to a LEA found in non-compliance with monitoring requirements is limited due to a lack of funding and staff, and a lack of appropriate technical assistance tools, such as State guidebooks. Technical assistance for school facilities management is considered very helpful by the New Jersey superintendents and administrators interviewed for this study. However, assistance is not always available and is not developed in a programmatic way to be coordinated with State goals.

While similar to other states researched for this study, the review mechanisms for New Jersey school facilities fall short of adequately addressing the building maintenance issue. While deferred maintenance is identified after a period of time, there is no method of assuring that buildings are consistently maintained. This could be accomplished by correlating existing conditions to maintenance plans and to local school budgets. Deferred maintenance leads to more costly capital improvements that can be avoided if building maintenance is addressed in a timely way.

The strength of facility programs in other states is linked to a philosophy that an appropriate mix of technical assistance and training for the LEAs and of state monitoring based on standard criteria must be developed. The establishment of a pro-active partnership between the state and LEAs to assure the adequacy of public school maintenance is a model that can be drawn from states such as Florida, Georgia, California, and Maryland.

## **Planning and Funding: A Mis-matched Process**

While administrators are concerned with adequately maintaining school buildings, annual building maintenance budgets are commonly considered a low priority item by local school boards. Without adequate funding, plans to maintain school buildings cannot be realized. The monitoring process often inadvertently creates an uneven spending cycle for school building maintenance activities. Maintenance efforts often increase in the years prior to monitoring and decrease after the school district passes monitoring. From the State level, no controls have been instituted to link funding to school maintenance goals.

There are several approaches and precedents from other states that could be considered to provide a better link between planning and funding. California and Florida directly appropriate state funds for school building maintenance. A state may also require that a maintenance budget be included in the annual local district budget. This is required in California with a "Restricted Maintenance Fund" for all State-funded projects and was required in Florida under the "Maintenance of Effort" requirement for all districts.

Maintenance requirements attached to state facility funding programs may be linked to the projected life of the building such as in Georgia and Massachusetts. Finally, the states of California, Massachusetts, Maryland, and Florida require maintenance plans to be submitted as part of State funding applications for new construction.

### **Study Findings on The New Jersey School Facility Program**

The following findings on New Jersey's current approach to school maintenance are based on interviews and observations made by the Architecture and Building Science Group at NJIT and through interviews with local, county, and State education administrators:

- Finding #1** *School building maintenance is often deferred. There is a backlog in many school districts and often building maintenance priorities are unclear.*
- Finding # 2** *Many local school districts are not equipped for building emergencies through budget, planning, or management .*
- Finding #3** *The State does not require systematic evaluation of local education agencies' needs for building maintenance and repair.*
- Finding #4** *The State has not set effective criteria for school maintenance and capital improvements.*
- Finding #5** *There is little review of mandatory planning documents at the State or county levels.*
- Finding #6** *There is no coordination between the major State facilities control and planning mechanisms that are mandated by the Department of Education.*
- Finding # 7** *State funding is not connected to enforcement of priorities, criteria, or State goals.*
- Finding #8** *The local budget for school maintenance is frequently considered discretionary and is not always connected to need.*
- Finding #9** *Local funding allocation for maintenance is often insufficient.*
- Finding #10** *The State provides insufficient technical assistance to local school districts, particularly concerning building maintenance.*

## **Approaches**

This report recommends four approaches to the State school facility system to improve the maintenance of public school buildings in the State of New Jersey. The recommendations developed by the study are based on the precedents observed in other state systems and on key findings about the New Jersey school facility system as presented in the previous section. The four proposed alternatives are:

### **Approach 1: Strengthen the current NJ school facilities program by including key activities and by making better use of existing mechanisms.**

The New Jersey school facilities system is similar to those of Georgia, Florida, and Maryland with many of the same mechanisms: a five-year Facility Master Plan, a long term maintenance plan, and monitoring. The New Jersey system could be significantly strengthened through better coordination of the planning and monitoring mechanisms with a focus on school building maintenance. As the study indicates, an understanding of the school maintenance need should first be established. Monitoring and the Facility Master Plan do not assess maintenance needs. Goals to address outstanding needs should be set and incentives to achieve them provided. A review at the State level of maintenance budgets against established criteria would reinforce these goals. This review should be coordinated with the required planning mechanisms. Technical assistance, research in the cost/benefit of adequate maintenance budgets, and the use of database systems would all support this effort.

### **Approach 2: Develop State initiatives to protect local school maintenance budgets.**

A minimum maintenance budget requirement would assure that a "level of effort" (similar to the Florida program) is made. This requirement would reinforce to local jurisdictions that there is a "cost of ownership" and that maintenance should be considered essential. The appropriate level of a minimum maintenance budget should be researched and linked to cost of building replacement and building inventory. State funds (operating funds) allocated to local school districts could be targeted specifically to reinforce this goal (or as an alternative to a minimum budget).

### **Approach 3: Attach stronger maintenance requirements to State funding and approvals for new school building construction.**

Debt service reimbursement, capital improvement funds, and some operating funds represent State expenditures on local school buildings that could be linked to an assurance that the buildings are adequately maintained. A combination of technical assistance with self-help guidebooks, research on low maintenance school construction, required maintenance plans, and a coordinated monitoring of building inspections and expenditures could be linked to approvals for new school building construction. This effort could be specific to those buildings in which the State is making debt service reimbursements (similar to plans in Florida, California, Maryland, and Georgia).

### **Approach 4: Address deferred maintenance through "steady-state" funding and budgeting.**

To address deferred building maintenance may require a "program" with a long-term plan and incentives to local education agencies. Deferred maintenance may have developed over as long as fifteen years and cannot be solved in a year or two. A long-term plan for "steady-state funding" would become

a commitment to address the problem. Public policy can then be set for a ten-year time-frame, and local education agencies can develop achievable plans. This approach is similar to the facilities program in Georgia in which the State asks local school districts to develop a long-term plan to bring all school buildings up to a twenty-year life. This approach is also recommended by the Building Research Board study "Committing to the Cost of Ownership."

## **Summary**

The goal of these approaches is to enable a creative and industrious effort to take place at the local level, while assuring that State funds are being protected and that public education facilities are adequately maintained.

A balance between adequate funding and efficient management must also be reached. The large task of providing adequate public school facilities and approaching the difficult backlog of deferred building maintenance in the State of New Jersey requires more than funding. Effective coordination, management, technical assistance, planning, standards, and monitoring are needed to assure that funds designated to attack the problem are used efficiently.

At the time this study was conducted, new relevant legislation was introduced and passed by the State Legislature. The Quality Education Act (passed in July 1990), partially overlaps with some of these recommendations. The study does not analyze this new legislation in relationship to the recommendations. However, the intention of the foundation funding formula reflects an understanding that an adequate facilities budget is an aspect of a "thorough and efficient" education. Under the Quality Education Act, the foundation formula allocates \$110 per enrolled child for school facility expenditures.

An addendum under a separate cover includes extensive matrixes reporting on the results of the Fifty State Survey and the interviews with the local school districts. Two charts are included to further explain the New Jersey State Department of Education programs that relate to facilities maintenance. The addendum also includes an index of reference materials received from the Fifty State Survey.

## **Recommendations of the Commission on Business Efficiency of the Public Schools**

From the time this study was completed and accepted by the Commission on November 1, 1990 until early April, 1991, the Work Program Steering Subcommittee of the Commission considered the approaches suggested in the report and developed recommendations for consideration by the full Commission. On May 6, 1991, the Commission considered the suggestions of the Subcommittee and adopted the findings and the recommendations detailed below.

While the Commission recognizes the need for increased expenditures to reduce a significant existing backlog of deferred maintenance and necessary school facility improvements, the current financial condition of the State does not permit full and immediate relief of this problem. The options suggested in the report on "steady-state" funding, while laudable, are not feasible given the current financial condition of the State. However, an effort at some level must begin or the price of meeting this challenge will rise even higher. For this reason, the Commission strongly advocates increased direct State support of facilities and recommends:

*Recommendation #1, the enactment of Senate Bill No. 2723 sponsored by Senator Feldman and Assembly Bill No. 3604 sponsored by Assemblymen Zangari and Salmon which provide \$600 million, to aid New Jersey school districts in constructing or renovating facilities, and*

*Recommendation # 2, that the State restrict the use of the facilities component of the Quality Education Act to facilities uses only. At present, only the capital outlay portion is restricted to facilities use. The Commission proposes that the portion assigned to current expense be restricted to expenditures within facilities-related line items. Monies thus budgeted but not expended in one year should be carried forward and budgeted for such line items in the following year and added to the current expense portion generated in that year. The budgeted funds could not be transferred for other purposes except that the County Superintendent may allow such transfers if a district's maintenance plan is completed.*

Frequently mentioned in the report is the need for improved and/or increased technical assistance to school districts on topics concerning facilities. The Commission finds that increased technical assistance can help school districts avoid future maintenance and facilities expenditures by improving the level of expertise and thus the quality of facility planning on the local district level and recommends:

*Recommendation #3, that the Legislature direct the Department of Education to develop and implement a plan for delivering improved technical assistance to school districts in facility planning and maintenance, and*

*Recommendation #4, that the Legislature direct the Department of Education to develop, distribute and promote the use of manuals and/or guidebooks on the topics of school facility design and facility needs assessment including a special volume covering the design of urban school facilities, and appropriate \$300,000 to the Department for such purpose.*

The Commission concurs in the report's observation that current New Jersey school facilities program is not "sufficiently coordinated." The Commission recognizes that the Department of Education is aware of this problem and recommends:

*Recommendation #5, that the Five Year Facilities Master Plan be redesigned to include plans for long-term maintenance as well as new construction, and*

*Recommendation #6, that the Legislature direct local school boards to include sufficient funds in their budgets to support their Five Year Facility Maintenance Plans and require such support before districts' budgets can be approved by the Commissioner of Education.*

The Commission recognizes that not enough information is available on the current condition of school facilities. The Commission believes that such information would assist State policy makers in efficiently targeting funds to the areas of greatest need. For this reason the Commission recommends:

*Recommendation #7, that the Legislature direct the Department of Education to conduct a survey of all Public School Facilities in the State. Such a study should be conducted in a uniform manner, established by the Department of Education, in all districts to guarantee: 1) consistency of results, and 2) equity in the distribution of funds based on need.*

The Commission agrees with the report in its identification of a lack of "inter-agency communication, State interpretation of guidelines, and policy streamlining" as a problem with regulations from State and Federal agencies. However, the Commission finds that this problem has an impact beyond school districts. Conflicting regulations, especially those on environmental and health issues, create problems for school districts, local municipalities, private business and home owners. For this reason, the Commission recommends:

*Recommendation #8, that the Governor, possibly through his office of Policy and Planning: 1) review the problems of conflicting State and Federal regulations and the processes of disseminating these regulations and their enforcement; 2) develop and implement a streamlined and coordinated process for the dissemination and enforcement of these regulations, and 3) develop and implement a process for identifying and resolving conflicts in these regulations prior to their implementation.*

Through cooperation with Governor's office and the Legislature, the Commission will seek the implementation of these recommendations.

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## **I. Description Of The Study**

This report documents a study conducted from May through August 1990 by the Architecture and Building Science Group at the New Jersey Institute of Technology at the request of the New Jersey Commission on Business Efficiency of the Public Schools. The report identifies programmatic methods at the State level to improve maintenance in New Jersey's public school buildings. The study was designed with three parts as follows:

- Part One:** **Fifty State Survey of State School Facility Programs** that reinforce, monitor, and insure that public school buildings are adequately maintained.
- Part Two:** **A Review of New Jersey State Programs** for funding, monitoring, and technical assistance relating to the maintenance of school buildings.
- Part Three:** **Recommendations for Programmatic Approaches** to insure the appropriate maintenance of public school buildings for implementation by the State of New Jersey.

### **Part One: Fifty State Survey**

This survey was conducted to identify precedents of state school facility programs which address school maintenance. Aspects of these precedents may be applicable to the New Jersey school facilities program. A questionnaire gathered information on: (1) state and local facility funding mechanisms; (2) state criteria for maintenance, new construction, and capital improvement; (3) state monitoring and inventory systems; and (4) basic data. In addition to the questionnaire, extensive discussions were conducted with a number of State school facility directors from states with facility programs that offer precedents for New Jersey including: Alabama, California, Florida, Georgia, Maryland, Massachusetts, and Rhode Island.

Forty-three responses were received, as well as supplementary information (see index in addendum). More than half the states responding to the questionnaire had school facility programs. Fourteen states had facility programs that address the maintenance of school buildings at the state level to some degree.

The report analyzes approaches to school maintenance used by seven relevant state facility programs (California, Florida, Georgia, Maryland, Massachusetts, New York and Rhode Island). Summaries of these state facility programs are included. Eight matrixes document the information gathered from the Fifty State Survey. The first matrix summarizes basic relevant data from all fifty states, while the other matrixes summarize the information from those states that have state facility programs. (See Fifty State Matrix I and State Facility Program Matrixes II-1 through II-7 in Addendum)

## **Part Two: New Jersey School Facilities Programs**

Funding, planning, monitoring, and technical assistance mechanisms for New Jersey school facilities were reviewed at the state and local levels. Information for the critique was gathered through interviews with: (1) ten local school district superintendents and/or facility managers (regionally selected: urban, suburban, and rural), (2) three county school superintendents and/or school business administrators, and (3) selected New Jersey State Department of Education administrators.

The goal of the interviews was to gather input from a cross section of school district types (urban, suburban, and rural). Each local school district representative was asked to describe the district's approach to school building maintenance and facility planning. He/she was asked to evaluate the school district's ability to maintain its school building stock and to identify problems in accomplishing set goals. They were also asked to make recommendations for improvement of the State facilities system. A summary of their recommendations is included. Information gained from the New Jersey interviews are compiled in four matrixes which summarize the key parts of the interviews. (See New Jersey School District Matrixes III-1 through III - 5 in Addendum)

From the input gathered through the interview process, ten findings were made about the New Jersey State programs and their ability to affect local school building maintenance. The findings are explained in detail in this report. The study did not attempt to evaluate the condition of local school facilities in New Jersey or in other states. The study examines and illustrates approaches to the problem of assuring public school building maintenance and does not attempt to quantify the problem.

## **Part Three: Approaches To School Maintenance**

Four approaches were developed to address the findings on the maintenance of New Jersey's public schools. These approaches incorporate precedents identified through the Fifty State Survey. The approaches are presented conceptually and require further research and development for implementation. The four approaches may be applied in conjunction with one another as they are complementary.

## **II. Definitions**

The term *maintenance* is often used to describe a variety of activities that relate to a structure from the time of the completion of construction until the eventual retirement of the building. Terms often included under a general category of "maintenance" include: *operations, alterations and capital improvements*. *Maintenance* is also often categorized as *preventive maintenance, corrective maintenance, and deferred maintenance*. To clarify the use of these terms, the following definitions are provided:

Maintenance is the "upkeep of property and equipment, work necessary to realize the originally anticipated useful life of a fixed asset" as defined by the Building Research Board of the National Research Council. "Maintenance includes periodic or occasional inspection; adjustment, lubrication, and cleaning (non-custodial) of equipment; replacement of parts; painting; resurfacing; and other actions to assure continuing service and to prevent breakdown. Maintenance does not prolong the design service life of the property or equipment, nor does it add to the asset's value."

Typically, the life of a building represents an assigned number of years that may relate to a mortgage period or expected depreciation of a building. However, with appropriate maintenance, the useful life of a building may extend well beyond this period.

Not included in the category of "maintenance" are activities generally considered *operations* as defined below. The report defines the word "maintenance" very broadly, not to suggest a precedent, but rather to match the broad interpretation of the word on the part of those interviewed and to simplify the report. The following is a list of terms generally related to the general category of "maintenance."

**Operations**, according to the National Research Board, refers to "those activities related to a building's normal performance of the functions for which it is used. The cost of utilities, janitorial services, window cleaning, rodent and pest control, and waste management are generally included in the scope of operations and are not maintenance."

**Alterations**, for the purposes of this study, include the modification and upgrading of existing rooms or spaces in a building to improve service to changing educational programs. Alterations may include adding air conditioning, ventilation, equipment such as computers to enhance educational programs, and the re-partitioning of space to suit new purposes. Typically, alterations are considered a capital expense.

**Capital Improvement** includes all projects that involve the addition of spaces for program or enrollment needs, system replacement to increase the useful life of a building, or major renovation to increase the value of the building. Capital improvements considered in the general category of "maintenance" under the scope of this study include system replacement, both corrective and preventive, and renovation to improve the value of a building. The addition of new program space or an alteration is not considered under the general category of "maintenance" in this study.

**Preventive Maintenance** is the improvement, replacement, or repair that prolongs a building's or a system's life expectancy, reduces operating costs, or prevents existing systems from breaking down. Preventive maintenance projects may include energy conservation measures, the repointing of brick, the replacement of flooring with a more durable material, or general equipment overhaul. Typically, preventive maintenance is considered an operating expense.

**Corrective Maintenance** is the replacement or repair of systems that are deficient or are not operating to full capacity. It may also involve bringing aspects of the building up to current code standards. Corrective maintenance projects include boiler replacement, roof repair or replacement, asbestos removal, and emergency repair. Corrective maintenance is generally considered a capital expense.

**Deferred Maintenance** is building maintenance that has not been addressed in a timely manner and has become "deferred." Projects are often deferred due to budget deficiencies and poor management practices. Corrective maintenance projects often lead to much greater repair costs when deferred.

In summary, maintenance is interpreted to be that mix of preventive, corrective, and deferred maintenance activities which may be accomplished through the use of operating budgets or capital expense budgets as appropriate.

Another area that requires clarification pertains to state overview mechanisms. For the purposes of this report, the terms *monitoring*, *survey* and *inventory* are hereby defined:

**Monitoring** is the review of building characteristics through site visits by regional or centrally employed state personnel for the purpose of assuring compliance with regulations. The term "monitoring" implies a legal responsibility on the part of local education agencies to meet the regulations being reviewed. Therefore, monitoring is used primarily as an enforcement measure rather than a process of cataloguing information.

**Inventory** is the process of compiling and maintaining a database on building characteristics or building conditions. The information on which the data are based may be collected through a number of research tools including state site inspections, information submitted to the state by local districts, and reports from monitoring visits. State school facility inventories are generally used for planning, needs assessment, or projections and may or may not be directly linked to funding legislation or compliance regulations.

**Survey** is the collection of data on building characteristics through either on-site inspections conducted by state agencies or through local district questionnaires. Surveys are generally used for state planning and policy-making purposes and may involve evaluations based on state criteria.

### **III. Review Of The Problem: The Cost of Deferred Maintenance**

*"To delay proper maintenance is to add to the cost of maintaining the building and hastens the need for renovation/replacement of the components thereof. An efficient school plant maintenance service is vitally important to the students, the staff, the educational program being delivered and the community it serves. By maintaining school plants at optimum levels of efficiency, operational costs are kept low."*

*Association of School Business Officials, School Facilities Maintenance, 1988.*

Facility management experience has shown that the delay of maintenance often results in costly deterioration. Deferred maintenance can eventually lead to the need for substantial renovations or the early retirement of a building. Prolonged deferred maintenance can threaten life safety and impede academic programs.

#### **A National Crisis**

Adequately maintaining school buildings is not a problem specific to New Jersey, but rather is a national crisis. This concern has been cited in a number of current studies including: *Working in Urban Schools*, Corcoran, et al., Institute for Educational Leadership, (1988); *Wolves at the School House Door*, Walker and Woods, Educational Writers Association (1989); *Committing to the Cost of Ownership*, Building Research Board, National Research Council (1990); *Results in Education 1989*, National Governor's Association; and "The Fiscal Support of School Facilities in Rural and Small Schools," Honeyman, Wood , et. al., Journal of Education Finance (1988). These reports and journal articles indicate that throughout the country, particularly in urban and rural areas, either funds are inadequate or adequate funds are not being allocated to maintain school

buildings. A number of these reports also confirm that the probable effect of deferred maintenance is not only an economic loss due to the shortened life of the school building or increased cost in capital improvements, but may also have a detrimental effect on the educational system.

*"Teachers told us that physical conditions have direct positive and negative effects on teacher morale, sense of personal safety, feelings of effectiveness in the classroom, and on the general learning environment."*

*Corcoran, Walker, and White, Working in Urban Schools, 1988.*

*"Neglect of maintenance can nevertheless affect public health and safety, reduce productivity of public employees, and cause long term financial losses as buildings wear out prematurely and must be replaced."*

*Building Research Board of the National Research Council,  
Committing to the Cost of Ownership, 1990.*

The deferred maintenance of school buildings in New Jersey is, then, symptomatic of a larger national problem encompassing a variety of essential public buildings and public infrastructure. Deferred maintenance of school buildings will take a long term and coordinated effort to resolve.

### School Maintenance: A State and Local Interest

There is a growing concern that public school buildings in New Jersey are currently not adequately maintained. In part, this concern is based on anecdotal information and the increasing number of school districts entering the Level III sub-standard category of the New Jersey State Department of Education's five-year Monitoring process. An analysis of state-wide aggregate data from the 1985 Facility Master Plan submittals estimates that the outstanding facility need for the State is \$1.8 billion in new construction and capital improvements. Estimates put the State's capital improvement needs for deferred maintenance of public school buildings at approximately \$600 million. (1987 compilation of Facility Master Plan data, State Department of Education, State of New Jersey). This study was not designed to assess the State's outstanding school facility maintenance need. The State currently does not employ an inventory mechanism or another tool to assess school facility conditions and maintenance needs. Due to a lack of accurate information, these estimates may be considered low.

The State of New Jersey and the local school district have an interest in assuring that school buildings are maintained and that funds are expended wisely and efficiently to achieve that goal. Public school buildings are a valuable resource to which substantial State and local funds are designated. Through debt service reimbursements, operating funds, and capital outlay, State funds are an investment in the local school building stock. Over the ten year period from 1979-80 through 1988-89, the State of New Jersey and local districts spent in excess of \$4.8 billion in debt service, capital outlay and other school building funds. If this expenditure were to be considered an investment, the State's interest in monitoring and assuring that public schools are adequately maintained is very clear. The "thorough and efficient education" clause of the State Constitution suggests that the State should assure that school buildings are efficiently maintained.

New Jersey currently has a number of mechanisms in place to approve and assist in planning public school facilities. These include five year monitoring, sub-standard space review, building plan review, and the Facility Master Plan. These devices need to be studied to evaluate their effectiveness and usefulness in assisting the local school district in developing an efficient facility system.

## **Protecting School Buildings at the Local Level**

The protection of public school buildings from deterioration is an appropriate combination of planning, technical assistance, adequate funding, management, maintenance criteria, and monitoring. The protection of school buildings is the responsibility of the State and the local school boards working together.

As earlier mentioned studies have shown, for many school districts lack of adequate funding is a significant barrier to continuing school maintenance. Lack of adequate funding may be attributed to lack of available resources and/or the inadequate allocation of resources within the local budget. School building maintenance budgets are frequently the first item to be cut by the local school boards when developing annual budgets. Regardless of intention, long term facility plans cannot be carried out by local school districts without adequate funding.

Delay in needed maintenance and improvements is not always caused by a lack of funding but also can be caused by a lack of appropriate management. There is a need to spend resources wisely and effectively. This is particularly the case when resources are limited. Project priorities need to be clear. Poor organization of tasks and inefficient staff management can lead to critical maintenance problems that may have been initially simple to fix. Management on the local level is one aspect that a state program should both assist and monitor for its success.

## **Federal Compliance and School Building Maintenance**

Review of school facilities is not limited to the State or to local school districts. Federal agencies also monitor school facilities such as the Environmental Protection Agency for underground oil tank removal and compliance to the Asbestos Hazard Emergency Response Act (AHERA). Agency regulations often carry strict compliance rules and unrealistic response times. These may cause many districts fiscal hardship and disrupt facility planning. Funding assistance is often slow or nonexistent. Penalties associated with non-compliance with these new regulations lead to a restructuring of priorities at the local level and competition for limited resources. The problem of lack of coordination and lack of support in addressing these requirements was found not only within New Jersey but also on a national level.

## **IV. Fifty State Survey**

### **Overview**

The survey of states was conducted to identify precedents and state school facility programs that may be applicable to the New Jersey school facilities program. By reviewing other states' procedures and requirements, useful lessons can be learned and appropriate procedures selected. The survey focuses on the functioning relationship between state programs and local operations. Given the scope of the research project, the study did not attempt to evaluate these programs through on-site investigations. The information was gathered through the questionnaire and interviews (See sample questionnaire).

A survey was sent to fifty states plus the District of Columbia, Puerto Rico, and Guam. Forty-three responses were received. Of the states that did not respond, it was determined through telephone calls that they have minimal or no state facility programs. The research team visited and interviewed key personnel in the states with programs most relevant to New Jersey including Florida, Georgia, Rhode Island, and Massachusetts. Survey information from active state school facility programs which address school maintenance is summarized. Key information from the surveys has been recorded in eight matrixes. (See Fifty State Matrix I and State Facility Program Matrixes # II-1 through II-7 in Addendum)

Of the fifty states surveyed, seven states have been identified as either the most relevant to New Jersey in terms of regional significance, such as New York, or the most active in the area of school facilities specifically in relationship to school maintenance. The most active states include California, Florida, Maryland, Georgia, Massachusetts, and Rhode Island.

On the state level, school building maintenance can be addressed through: (1) funding, (2) planning, and (3) monitoring. While the active states tend to employ policies that address all three areas, many states are using only one of these approaches. Funding can be made available through direct state allocation for building maintenance or by attaching maintenance requirements to state facility funding programs such as capital outlay. State planning requirements may include district maintenance plans in conjunction with technical assistance to local education agencies. State monitoring reviews local procedures and performance in school maintenance and may include an inventory process.

### **Funding**

California and Florida have programs that directly appropriate state funds for school building maintenance. In California, the Deferred Maintenance Program allocates funds in three different funding levels to local districts' maintenance budgets on the basis of established need. In Florida, license tag receipt funds go directly to maintenance projects that protect health and safety. By directly allocating funds for school maintenance, the State supports local efforts and is assured that the local district will maintain an annual budget for school maintenance.

Many states support maintenance indirectly through funding of general operations budgets. These states include New Jersey, New York, Rhode Island, Georgia, Alabama, and Maine. In these states the expenditure of the local school operating fund is at the discretion of the local school district.

The state may also require that maintenance budgets be included in the annual local district budget. This is required in California with a Restricted Maintenance Fund for all State-funded

projects and was required in Florida with the "Maintenance of Effort" stipulation for all districts. The Florida Legislature recently eliminated the requirement; school districts argued that they could not afford to keep the annual maintenance budget.

Maintenance requirements attached to state facility funding programs may be linked to the projected building lifetimes, as in Georgia and Massachusetts. State requirements for projected building life vary from twenty to fifty years. California, Massachusetts, Maryland, and Florida require maintenance plans to be submitted as part of state funding applications. Florida and Washington require the submission of a maintenance analysis that includes a cost/benefit projection of materials and construction methods used in the contract documents. (See Matrixes # II-5 and II-6 in Addendum for an overview of state facility funding programs).

### **Planning**

Many states require that some form of long-term maintenance plan be completed by local education agencies. In many cases, as in New Jersey, the use of these plans remains largely up to the discretion of the local education agencies. Facility Master Plans are also required in many states and may or may not include maintenance as an item to be considered. In Georgia and Florida, the Facility Master Plan is integrally tied with the states' assessment of facility needs, the state funding mechanism and the states' facility survey process. (See Matrix # II-2 for an overview of state facility planning mechanisms and Matrix # II-3 for state facility criteria, both in the Addendum)

### **Monitoring**

State inspections to monitor maintenance of public school buildings is undertaken by only a few states. Georgia has just instituted a biennial maintenance review and Maryland has instituted a program to inspect one hundred schools annually for maintenance and other facility related issues. Many states have inventory or facility survey processes that may or may not include a component on maintenance. From the results of this survey, it appears that Florida and New York have the most comprehensive school facility inventory systems. These inventories document building conditions. In some states, an inventory is only completed for state-funded projects at the time of plan review and may or may not be subsequently updated. Other states, such as California, keep an inventory that is updated through written questionnaires that are completed by local superintendents. Smaller states such as Delaware, Rhode Island, and Hawaii visit every school on an annual or biennial basis. (See Matrix # II-4 in Addendum for an overview of state monitoring processes.)

### **Summary of Relevant State School Facility Programs**

The following reviews state school facility programs in California, Florida, Georgia, Maryland, Massachusetts, New York and Rhode Island. Summaries for Georgia, Florida, and California are presented in greater detail as states with unique and active programs that may hold important precedents for New Jersey to consider. While the study focuses on school building maintenance and improvement, it was difficult to explain these systems without detailing the overlapping effect of new construction and funding programs with school maintenance policy and procedures. For this reason, the summaries outline these areas in each of the most interesting states.

## **California**

California's School Facility Planning Division is currently working to address the tremendous growth in student enrollment and the \$625 million backlog in school building maintenance within the State. Existing requests for construction amount to six billion dollars. The State anticipates an additional two billion dollars per year in construction costs over the next five years to accommodate the 200,000 new students per year projected for the next five years. The goal is to improve school building maintenance and to maximize facility usage. The program includes: (1) the extensive use of relocatables; (2) lease purchase for new construction and major renovation; (3) current and deferred maintenance requirements and funding; (4) database inventory; (5) an asbestos abatement program; and (6) reprogramming; e.g., multi-tracking. A Facility Master Plan is submitted with all applications for State funds.

### **Lease Purchase**

In California, lease purchase funds can be used not only for new construction but also for renovation activities which include deferred maintenance.

California funds school construction, addition, and renovation with a State-operated lease purchase program. The Leroy F. Greene School Building Lease Purchase Law of 1976 and the subsequent Greene-Hughes Lease Purchase Bond Law of 1986 allowed the State of California to raise \$800 million in 1986 and in 1990. In addition, a new bond issue for school facilities funding is pending. The State holds the title to each school built or renovated, leasing it to the school district. After a forty-year period, the title is transferred to the school district.

A district must submit a School District Asset Utilization Plan before State approval of a lease purchase. This plan describes surplus buildings and land holdings in the district and their potential for development. This is a measure insuring that a district's building stock is used efficiently and that the proposed project is necessary.

Lease purchase can also be used to fund larger maintenance projects. In this case, a district must give up ownership of the building to the State and comply with all lease purchase regulations.

### **Maintenance**

According to the School Facility Planning Division, maintenance of most school buildings throughout the State is currently deferred by the local school district due to lack of funding. Presently, only 1 percent of districts are involved in preventive maintenance programs, and 10 percent have ongoing current maintenance projects. To address the backlog of deferred maintenance, the State has three major programs that mandate or provide for maintenance:

- 1. Lease Purchase Restricted Maintenance Fund**
- 2. Modernization/Reconstruction Funds**
- 3. Deferred Maintenance Fund**

### **Lease Purchase Restricted Maintenance Fund**

The lease purchase law requires an annual Restricted Maintenance Fund to be allocated by the local district for all State-funded construction projects. This fund is equal to 2 percent of the district's annual general fund. These funds must be maintained for the life of the lease purchase agreement, generally 40 years. In practice, this program is not always successful. The maintenance funds are not specifically linked to the new projects but are allocated on the district level. Therefore, the district easily drains those funds to older buildings, which have had maintenance deferred, rather than retaining them for ongoing maintenance of new lease purchase projects as was the intent of the legislation.

### **Modernization/Reconstruction Funds**

Modernization funds are allocated from the State School Building Aid Fund. This is a program for schools aged 30 years or older. Generally, modernization includes all non-structural improvements necessary to update a building to conform to present usage. The district can be funded for up to 25 percent of the replacement cost of a school building. Modernization often absorbs deferred maintenance for these buildings.

Reconstruction is offered as part of the lease purchase program. Reconstruction is primarily for structural modification of buildings 30 years old or more. Reconstruction can provide up to 75 percent of the replacement cost of a building. However, due to lack of funds appropriated by the State, reconstruction is rarely used as a funding strategy by the local school district.

### **Deferred Maintenance Fund**

To qualify for matching funds for deferred maintenance expenditures, a district must submit a Five-Year Plan for Maintenance. Matching funds are used as a "carrot" to encourage districts to submit maintenance plans. The district must also certify that it is placing one half of one percent of its general fund into an account to be matched by the State. The actual match amount varies with the State's available fund for allocation. It has been as high as one percent and as low as one quarter of one percent of the local school district's general fund.

### **Inventory**

In Autumn 1990, the State is due to complete a comprehensive database inventory program. The inventory is taken by the school district and is updated annually. The inventory is done in three phases:

- Phase I: acquires information about the district as a whole;*
- Phase II: collects information relative to each site within the district;*
- Phase III: gathers information about the individual buildings on each site and the major rooms within them.*

Details include types of facilities, square footage of exterior corridors, acreage, financial status, and instructional purposes. The State is developing a program for representative site visitation as a verification of the inventory.

### **Multi-tracking**

Multi-tracking, or year-round programming, has been introduced in 500 schools, or 14 percent state-wide. Teacher cycles are 45 days on and 15 days off, or 60 days on and 20 days off. This has allowed a 33 percent average increase in enrollment capacity. According to the State facilities office, through this scheduling strategy staff costs increase and building construction costs decrease. Currently, cost/benefit analyses are being developed. Multi-tracking creates a problem for adequate and timely building maintenance. As school is in session all year long, work that is traditionally done in the summer "off time" must be restructured to fit within the tight school schedule.

### **Regulations and Criteria**

California maintains and continues to develop strict regulations and criteria. These criteria are enforced through the plan approval process. A series of guidebooks for districts have been developed by the State. These include standards for site selection (including new requirements for setbacks from power lines due to effects of magnetic corona), sound levels, air quality, lighting, building performance, and energy efficiency (see index of materials from the fifty state survey in separate addendum).

California has a double burden of maintenance backlog and soaring enrollment. The funding programs, along with inventory, planning, and State controls are all working together to address the problems specific to California.

## **Florida**

Over the past ten years, the State of Florida has undertaken an aggressive approach to school construction and monitoring of local school district facility activities. In many regions, Florida is undergoing enormous growth in enrollment due to increased immigration and middle class housing development. Florida's education system is based on county districts.

The Florida school facility program is based on State approval of local capital improvement and new school construction projects built with State funds. This approval is based on two related documents: (1) the Florida State Inventory of School Houses (FISH); and (2) the five-year State survey. The State survey leads to a local school district's five-year master facility plan. The local school district will only receive funds for those projects approved by the five-year State survey.

### **Facility Funding**

The State of Florida distributes funds for school facilities from two sources: a Capital Outlay and Debt Service Trust Fund (CO & DS funds) which is financed through license tag receipts; and a Public Education Capital Outlay (PECO) fund which is financed through a gross utilities tax. The State also allows the local school district to raise funds through local millage (up to two mills without a local vote). These three sources of funds are specified and closely monitored by the State. In addition, the local district may raise a local bond, if approved by the voters.

### **School Building Maintenance Requirements and Funding**

While school maintenance is considered a priority by the State Facility Office, the State Legislature has recently changed the policy of a required minimum local budget for school building maintenance and improvements. Previously, a minimum "maintenance of effort" budget had to be included in every school district budget. "Maintenance of effort" refers to the average of the past three years' maintenance budgets. While it may not be the appropriate amount to meet the local education agency's need, this simple measure assures that an annual building maintenance budget is maintained.

The "maintenance of effort" requirement was dropped by the State Legislature under pressure from local school boards arguing that the school districts could not afford the requirement. Those interviewed within the State Facilities Office generally saw this as an unfortunate decision and suggested that the requirement would be restored when school building conditions significantly decline due to lack of maintenance.

In addition to this measure, 10 percent of the local share of the CO & DS funds (licence tag receipts) must be expended on health and life-safety building maintenance. The definition of maintenance for health and safety includes asbestos removal and other environmental requirements. As a result, local school districts easily meet this expenditure. CO & DS funds must include and follow a priority list for building maintenance expenditures.

The majority of the funds for the Florida State facility budget are from PECO funds which average \$690 million dollars. PECO allocated approximately \$58 million to local school districts for maintenance and repair in 1989. All use of PECO funds must be specifically authorized by the State Facilities Department. However, building plan review is not required for expenditures

of less than \$200,000. Florida's plan review process differs from the plan review process in New Jersey, which has no minimum expenditure exemption. The intention of this exemption is to streamline the review process and to give the local education agencies some flexibility so that they can respond quickly to repair needs.

Funding for maintenance from PECO funds is based on the square footage and the age of the building. This funding formula calculates maintenance funds based on the replacement value of the building. This is calculated at 2 percent depreciation per year. This allocation of funds relates to the age of a district's building stock and the number of State approved rooms within a district's schools, not the ability of the district to raise funds. The building condition is evaluated by the inventory system.

Maintenance funds from the State cannot be moved to an alternative budget by the local school district. The State Facilities Department has an Audit Department that checks annual budgets. If the designated funds are not spent as described within 21 months, they are withdrawn from the district.

#### **Florida Inventory of School Houses (FISH)**

Florida has developed FISH over a 16 year period. FISH is a detailed, computerized inventory system of all State school buildings. The inventory is related to the State survey and is the basis for the allocation of PECO funds. Aggregate data from the inventory is used for analysis and public policy. The inventory correlates the need to house students with the space available in each school. A five-year projection of space needs is created. The state facility office reviews all rooms and rates them in three categories: C-1, C-2, or C-3. A C-3 rating for a room or a building indicates that the State will no longer designate funds to that room or building except for life-safety or health expenses.

The FISH inventory system is problematic in that the rating does not distinguish between programmatic requirements, code violations, or maintenance requirements. Generally, the criteria used to establish a rating are programmatic requirements as specified by the school building code. The inventory does not clearly State the reason for a poor rating. As a result, school districts would find difficulty in attempting to remedy the condition of the school or classroom from the information given by the inventory alone.

#### **State Survey**

All school districts are surveyed every five years by a team composed of State Facilities Department personnel and local school district administrators. The survey involves three steps: (1) the development of prototype schools by the local school district; (2) building inspection of all schools within a district; and (3) the development of a list of State-approved activities. The inventory and the prototype school requirements are used as a basis to make recommendations to bring all schools within a district to the same level. The activities recommended through the survey become the only activities for which State funds may be used. In this way, the State sets its priorities for each district. The school district may not use State funds for maintenance, construction, or renovation other than for State-approved projects listed in the survey. The survey process requires approximately one week for the review of an entire district.

#### **Technical Assistance**

The State Facilities Department stressed that its goal is to provide useful technical assistance to local school districts. The State Facilities Department offers many services to local school districts including maintenance workshops and building inspections specifically to review

capital improvement and maintenance needs. The balance between State overview and local control allows for innovation and productivity on the local level. The State Facilities Department also helps to interpret regulations of other federal and State agencies and acts as a clearing house for agency regulations. All school buildings are scrutinized by a local inspector annually. These inspectors are trained by the State Facilities Department. Deficiency reports are submitted to the State including cost estimates for required improvements.

As the Florida education system is composed of large county systems, many counties are able to develop their own facility departments with a high level of professional ability and knowledge of construction management. Two of the fastest growing counties, Dade and Broward, are addressing their facility needs with large local bond issues and innovative facility management approaches.

### **General Summary**

The Florida school facility system has a number of innovative aspects that have developed over a fifteen year period. The system has closely related State-funding to local compliance with State regulations. Florida directly funds school maintenance and that those funds are carefully monitored. A more important precedent, however, is the "maintenance of effort" budget requirement even though it has subsequently been dropped by the State.

### **Georgia**

The Georgia capital outlay program for school facilities is in many ways similar in structure to New Jersey's system. Both systems have monitoring site surveys, a five-year facility plan, and regional State offices. However, unlike New Jersey, Georgia's five-year facility plan and its monitoring process are used directly as a basis of funding, expenditures, and approvals.

The principle of "entitlement" ties monitoring and planning to funding in the Georgia system. Local education agencies (LEAs) earn credits by providing good academic programs and adequate facilities. The LEA gains access to State funding through these credits. The Quality Basic Education Act, passed in the late 1970's, provided the impetus for the two funding programs in Georgia. The concerns of the act include optimizing school size economically and programmatically and reducing school facilities' life-cycle costs. The act made specific recommendations as to the optimal school design with recommended school sizes, staffing, and program offerings. The legislation declared the life expectancy for a new school or renovation to be a minimum of 20 years. The act stresses a joint effort between the local school districts and the Georgia State Department of Education to provide for quality education and quality facilities. The positive, joint-effort has contributed to the success of this program.

### **Funding for School Building Maintenance**

Georgia has two funding programs for school facilities: (1) a general fund for program operation, and (2) a capital outlay funding program. Maintenance and operations are funded through one category of the general fund. The general fund is dispersed in a fixed amount per child. Child count is taken on a weighted basis, which factors in community wealth, educational programs, and special needs. The use of funds for maintenance, however, is left entirely up to the local school district. The State has identified the need for greater control over maintenance fund usage and has recently instituted a biennial maintenance review, required maintenance plans. A non-compliance rating requires a corrective action plan for districts that do not maintain their buildings.

### **Capital Outlay**

The capital outlay program is structured around a five-year master facility plan, which is completed as a joint effort between the district and the State. A Comprehensive Facility Survey is made in conjunction with the local master facilities plan. Facility needs are assessed and identified during this survey. The survey team is composed of both State officials and local representatives. The five-year plan is then developed by the local district with a State regional official to list projects and prioritize them. A local architect is hired to give cost estimates for each project.

The State Department of Education annually calculates the total State facility need based on the aggregate of the local five-year plans. The total State need is determined by the sum of the total annual debt service on bonds (adjusted downward based on local shares) and the total improvement needs recommended in the most recent facility plans. Each year the local school districts earn a pro-rata share of funding in relation to the total State need. This is the district's annual "entitlement." As written in the Quality Basic Education Act, the Legislature annually has the choice of appropriating \$40 million, \$60 million, \$80 million, \$100 million or of making no appropriation for this purpose. The State holds entitlement funds until districts apply to use their designated share.

Depending on the size of the district, the annual entitlement may or may not be enough to complete a project. Smaller districts generally wait several years for their annual entitlements to accrue before they can complete a State-funded project. When a district has accrued enough entitlements, it can apply to the State to release those funds. Entitlement funds can only be used for the top item on the district's priority list as determined in the Master Facility Plan.

All State-funded projects require a local matching share. The ratio of local share to State share is adjusted through an equalization formula. The local matching share varies from 10 percent to 25 percent of the project cost. Incentives for consolidations (combining of two schools within a district) and mergers (the regionalization of districts) can reduce the required local share by half.

All new schools and building renovations must have a projected life of at least 20 years. The renovation cost can not exceed the replacement cost of the building. The architect must assure projected life "equivalence" to a new project.

The program also provides an incentive for locally-funded, self-initiated projects. Once a district completes all of its priority items from the Master Facility Plan, the district can apply to use its annual entitlement to repay principal on local bonds for completed State approved projects. Over the ten years the program has been in effect, there has been a dramatic increase in locally-funded projects due to this incentive.

### **Relevance to New Jersey**

Aspects of the Georgia model may serve as a valuable precedent for New Jersey. The model demonstrates improved State control of funding allocation through an organizational structure similar to New Jersey's. Georgia, like New Jersey, has a strong tradition of local control. Georgia's program design succeeded in maintaining a sense of local control while enacting an aggressive State program to improve both educational programs and facilities. Politically, the program was very daring, with many political casualties and court appeals. However, according to the State administrators, the end has justified the means and a strong positive bond has developed between the local school districts and the State Department of Education. In terms

of school maintenance, legislation has been passed to address maintenance issues as described above, but the programs enacted are just being implemented. It is too early to tell whether the State maintenance programs will prove to be a valuable model.

## **Maryland**

The State of Maryland Public School Construction Program monitors renovation, addition, and new construction. The State allocates funds for construction, renovation, furnishing, and contingency (approximately \$80.5 million in 1989). The State-funded allocation for construction is determined using the maximum gross per pupil area allowance as set by the Interagency Committee on Public School Construction. To put the following activities in perspective, the State of Maryland has approximately 1200 schools or slightly more than half the number of schools in New Jersey, which suggests that the active role of the State facilities office may be more manageable.

### **Maintenance Funding**

The State funds large maintenance projects while minor maintenance and repairs are a local responsibility. Currently, approximately \$5 million is appropriated in the State budget for major maintenance projects or systemic renovation. Systemic renovation includes projects greater than \$100,000 that repair or replace a major system of a properly maintained facility extending the useful life of that facility or a component of that facility for a maximum of fifteen years. Categories include structural, mechanical, plumbing, electrical, fire safety, and conveying systems. The State subsidies range from 50 to 85 percent, based on the age of the building. A comprehensive maintenance plan must be submitted annually with systemic renovation or capital improvement requests.

A five-year Master Plan is submitted by each district with annual updating of inventory, plans, and educational programs. The Master Plan is reviewed by the State and discussed with the local district. Only projects listed in the Master Plan are eligible for state funding. In addition to this direct state contact with the local school district's planning process, Maryland offers additional technical assistance to local school districts through regional facility planners (county-wide) and provides extensive reference handbooks for new construction.

### **State Survey of School Buildings**

One hundred schools are visited each year. As a requirement of the Public School Construction Program, schools must allow the State Department of General Services to inspect. Site visits are prioritized as follows: (1) schools receiving State facility funding; (2)schools with a poor rating (automatic revisit); and (3) balancing visits across all school districts, as well as among elementary, middle, and high schools. Schools that have never been visited are a priority.

The program has been in effect for ten years, during which approximately 70 percent of the 1200 schools have been visited. Districts are not given advance notice of inspection. This has apparently kept districts alert to problems, increasing the level of maintenance state-wide.

### **Relevance to New Jersey**

Maryland has many of the same mechanisms as New Jersey to address school facilities including a long term master facility plan. However, the Maryland program has several additional aspects which are relevant to school building maintenance. The master plan is applied both as a technical assistance device and as a monitoring device for state funding. State level concern for the maintenance of local school buildings is evident through available funding, state inspections and

requirement of a comprehensive maintenance plan. These mechanisms work together as a system of checks.

The Maryland program significantly differs from the New Jersey system in regard to the coordination of efforts and technical assistance. The Maryland program is oriented toward technical assistance both through monitoring devices and resources such as handbooks.

## **Massachusetts**

The primary function of the Massachusetts State Facility Office is plan review of State-funded new construction and renovation projects. A five-year plan is required for school districts requesting State support for new construction or substantial renovation. The five-year plan documents energy and management plans, age, siting, description, and number of rooms. A review of new construction for State funding must include a twenty-year maintenance plan for the proposed building. All State-funded buildings are to be built with a fifty-year life. Non-compliance with adequate maintenance leads to inspection by the State Facility Office. The State can withhold debt service subsidies from a district as a penalty for not maintaining state-funded school buildings.

### **Relevance to New Jersey**

The Massachusetts program relates primarily to new construction and takes a minimal approach to school building maintenance. The required maintenance plan, the required fifty-year construction life of state funded new construction projects, and the ability to withhold debt service funding are similar in form to the California "lease purchase system" in which the state holds the title of the building for the duration of the debt service. The Massachusetts program appears to have insufficient staff to support review and technical assistance to local school districts to meet the requirements of a twenty-year maintenance plan or to monitor for non-compliance. Massachusetts is an important precedent for New Jersey from the perspective of the concept of "shared ownership". The Massachusetts example implies that schools are not only under the ownership of local school district, but that those school buildings which are state funded represent a state investment and must be protected through adequate maintenance.

## **New York**

New York State provides funds for capital projects. These are new construction or renovation projects greater than \$10,000. State funding to local school districts is based on a wealth formula with almost 100 percent aid to poorest districts and none to the wealthiest districts. The average is 48 percent State funding.

### **Maintenance**

There are no State funds available for minor repairs or maintenance, either deferred or ongoing. These are considered a local responsibility. New York City alone has a deferred maintenance backlog of as much as \$500 million.

Facility plans are submitted locally and updated annually. Facility plans must be submitted to the State with capital project submittals. The State reviews plans for minimum standards, but compliance is voluntary unless State aid is involved. In such a case, if a school district does not comply with minimum standards, then State aid can be held back. In practice, this has never been necessary.

### **Inventory**

During the past eight years, the State Education Department has developed a database inventory of all school buildings. All fire inspection reports are documented on computer. These inspections are done at the local level. Inspectors are trained and registered by the State Fire Administrator. The inspection encompasses: conformance to fire-safety regulations as per State guidelines, energy concerns, water supply, hydrants, underground tanks, and biographical data, e.g., age of buildings, number and ages of additions, sizes of rooms, grades, and numbers of students.

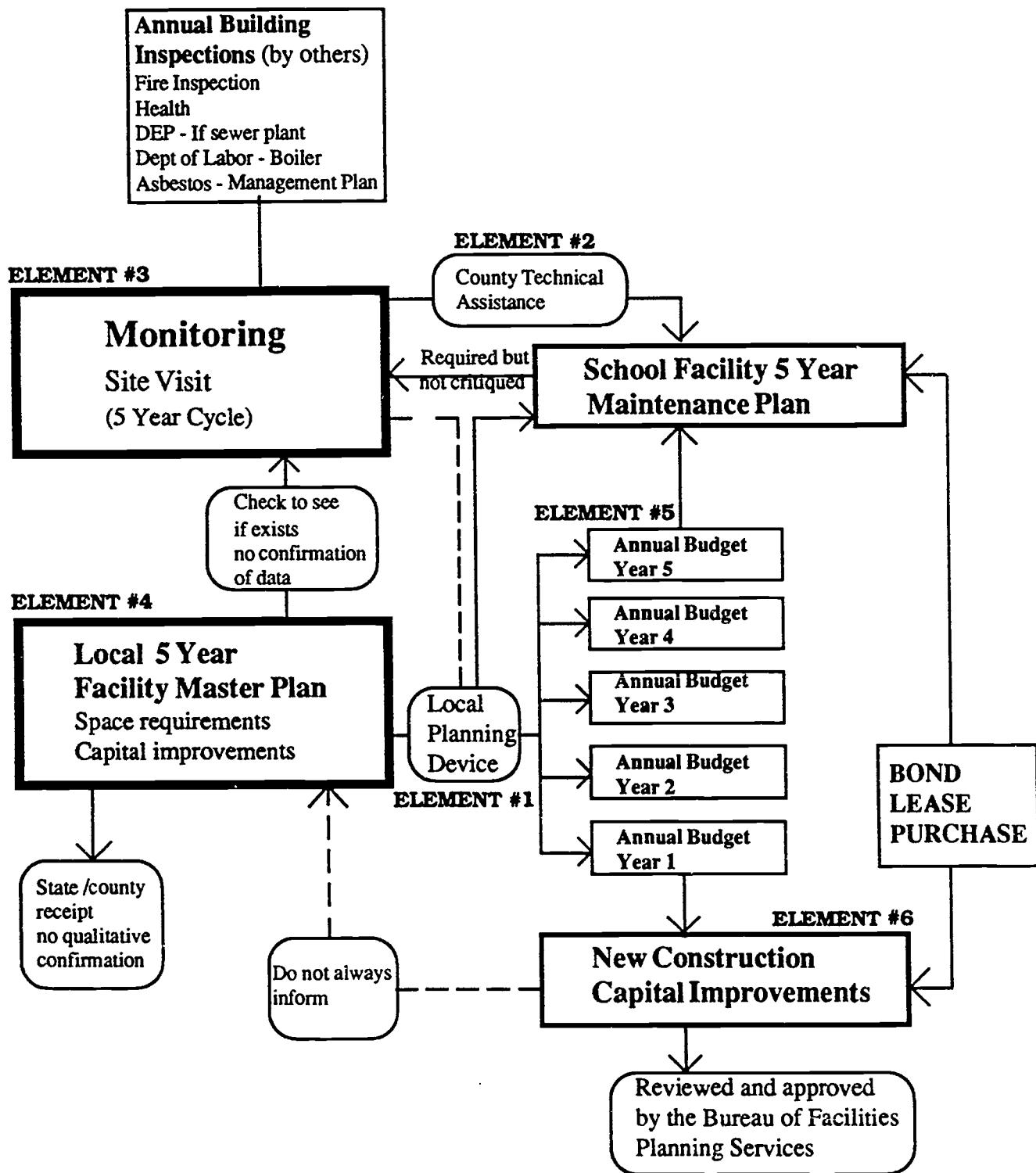
The State anticipates development of a State visitation team to verify local reports, as well as to document construction materials and present conditions.

### **Relevance to New Jersey**

New York also takes a more minimal approach as compared to the examples of Maryland, California and Florida. The creation of a database system to inventory all schools in the state is an important difference as compared to New Jersey. This data base offers a reference for both changes in public policy and ongoing monitoring of state-wide need.

### **Rhode Island**

Rhode Island has developed educational facility standards in addition to State building codes. Every five years, all schools are visited and reviewed for compliance. As part of the review, schools must provide a maintenance plan. Schools must respond to the findings of the review and provide a plan to bring schools to compliance. State funding may be curtailed as a penalty for non-compliance. Interim on-site building inspections are conducted by the State every two years.



#### LEGEND

— Weak connection

STATE FACILITY PROGRAM  
NEW JERSEY STATE AND LOCAL MECHANISMS  
RELATING TO SCHOOL BUILDING MAINTENANCE

CHART #1

## **V. New Jersey School Facility Program**

### **Introduction**

The following is a review of programs and procedures within the New Jersey State Department of Education that affect and relate to the maintenance of school facilities. The study reviewed the system of compliance requirements, planning mechanisms, and budgeting process to identify the key issues that affect the ability of local school districts to maintain their public school buildings. This report presents findings leading to recommendations for possible improvement of the facilities program.

The information for this section was gathered from interviews of State and local administrators. The interviews produced anecdotal information and did not allow for a statistical analysis as the survey was limited to 10 districts out of nearly 600, and 3 county offices of the New Jersey State Department of Education out of 21. The interviews conducted include ten local school district superintendents and/or facility managers; three county superintendents, and/or business administrators; and administrators from the Division of Finance, the Bureau of Facilities Planning Services and the Division of County and Regional Services of the New Jersey State Department of Education. Of the ten local districts, three are urban, four suburban, and three rural. The responses to specific questions during these interviews have been recorded in five matrixes titled: III-1 Profiles; III-2 and III-3 Planning; III-4 Monitoring; and III-5 Finance (In Addendum).

The districts, counties, and state agencies interviewed for this study were carefully chosen in collaboration with the Commission on Business Efficiency of the Public Schools to represent a cross section of socio-economic groupings and district sizes. Although some of the information gathered may be specific to a particular school district, the majority of the comments represent typical conditions as they were confirmed repeatedly in the interviews. The study did not evaluate the magnitude of deferred maintenance or the condition of school buildings.

The New Jersey public school facility program and related funding and monitoring mechanisms involve six important elements. While some of these elements work together, others do not. Chart 1: New Jersey State and Local Mechanisms depicts the relationship of these elements.

**Element 1: The local decision-making, management, and budget process, including a long-term maintenance plan;**

**Element 2: County technical assistance;**

**Element 3: Five year monitoring by the Department of Education, Division of County and Regional Services;**

**Element 4: The Facility Master Plan;**

**Element 5: Available funds from State and Local resources;**

**Element 6: The State Department of Education's Bureau of Facilities Planning Services.**

## **(1) Local Decision Making, Management, and Budget Process**

*Key Issues:*

- *The building maintenance budget is often cut during the local budget process.*
- *Planning documents are not always used as a basis for budget decisions.*
- *Few criteria and little technical assistance for the development of the long term maintenance plans is given to the local education agencies.*

The local education agency (LEA) is primarily responsible through planning, budgeting, and management for the ongoing maintenance and improvement of the local school building stock. In Type II districts, residents vote on the school district's annual budget. According to those interviewed, the building maintenance portion of the budget is often one of the first to be cut through this local control process. Additionally, few school districts provide in their budgets contingency or emergency repair funds which are inevitable expenditures.

The approval of a local school budget is often difficult. Many school districts interviewed indicated that their school budgets were often defeated. The State Department of Education indicated that approximately 48 percent of local district budgets were defeated last year. As a minimum school maintenance budget is not mandated by the State, any funds budgeted by an LEA for maintenance may be transferred to any other purpose allowed by State law.

The local school district's process of identifying and prioritizing school maintenance or capital improvement projects may involve a combination of the following planning and reporting mechanisms: the five-year monitoring report, the Facility Master Plan, or the long-term maintenance plan. Unfortunately, during the budget process, these documents are not necessarily the source for decision making.

### **The Quality Education Act and Local School Facility Budgets**

The Quality Education Act, passed July, 1990, begins to suggest that minimum funds should be expended on school facilities although no strict requirements were passed for local education agencies. The new foundation formula for State funding in the Quality Education Act is based on an allocation of \$110 per child for school facilities. The State foundation aid percentage of this \$110 per child allocation is intended for capital outlay revenue. This method of allocating State funds represents an intention regarding the expenditure of funds to meet the foundation of a

"thorough and efficient" education. Under this formula, the funds need not be expended as indicated by the formula. Based on current discussion with the State Department of Education, a review of the local school budget to assure that \$110 per child is expended on school facilities may not be required.

### **Maintenance Plan**

The long-term maintenance plan is a document required by the State Department of Education in the monitoring process. The monitoring code requires that the maintenance plan address five building systems: mechanical, plumbing, electrical, structural, and grounds. However, the maintenance plan requirement is not specified in form and does not include criteria or recommend time frames to address the five major systems. Although monitoring refers to the building code in regard to the five systems, the building code is rather limited in scope and exists mainly as a standard for health and safety. It does not set guidelines or indicate methods to set appropriate priorities for maintenance or capital improvement projects.

Local school districts' maintenance plans observed through this study vary greatly in form and use. Some districts have maintenance plans that are effective working tools, include ordering categories by priority, and are coupled with annual maintenance inspections. A few districts indicated that while they had a plan, it was not followed due to lack of funding and/or the need for emergency repairs. Some maintenance plans were not connected to costs, or costs were not totalled or subtotalled. Very few maintenance plans appeared to use a database system for updating and referral on an ongoing, dynamic basis.

## **(2) County Technical Assistance**

### *Key Issue:*

- *County technical assistance is helpful but often not sufficient to meet LEA needs.*

The County Office of Education: (1) offers technical assistance to local school districts; (2) conducts Level I monitoring; (3) reviews substandard spaces; and (4) reviews the Facility Master Plan. Technical assistance from the county office was generally considered helpful when available. Local and county representatives indicated that they believed that the county offices were understaffed and unable to completely address local needs for technical assistance in regard to facilities. Many local districts indicated that the pre-monitoring visits from the county were highly useful. Some districts indicated that they often requested the participation of their county office particularly in issues of new construction, maintenance, funding, and other agency regulations. Overall, there is insufficient technical assistance available to the local education agencies.

### **(3) Monitoring**

#### *Key Issues:*

- *Pre-monitoring provides helpful technical assistance.*
- *Monitoring of facilities is generally code-related and does not specifically address building maintenance and repair.*
- *Monitoring generally does not review the long-term maintenance plan and the Facility Master Plan in content or against performance.*
- *An uneven facilities budgeting cycle is created as a result of monitoring.*

Five-year monitoring of the LEAs is conducted through the County Office of Education by the county school business administrator under the direction of the Division of County and Regional Services within the State Department of Education. The monitoring process is based on 10 elements with 43 indicators. Facilities is one of the ten elements. The monitoring rates the school districts on three levels:

*Level I: Standard, certified school district;*

*Level II: Fail Level I, Local Improvement Plan designed by local group;*

*Level III: Substandard, Corrective Action Plan, Comprehensive Compliance Investigation required.*

A Level II or a Level III school district must respond to the findings of monitoring with a Local Improvement Plan or a Corrective Action Plan respectively to bring the facilities into compliance. At Level III, the school district is very closely monitored. Level III also stimulates a full review of each building within the local district by the Division of County and Regional Services, the Bureau of Facilities Planning Services and others. If the district does not correct the conditions in Level III within the given grace period, the State has the option to "take over" the management of the school district. Prior to a full State "takeover", the district undergoes a Comprehensive Compliance Investigation. This is a complete and thorough investigation of the LEA conducted by the State Department of Education. According to the Division of County and Regional Services, this investigation may take several years to complete.

The Level III monitoring process lists items that must be addressed by the LEA to meet compliance. While there are priorities, these items may be delayed (according to one school district in Level III) by requesting a one-year exemption to the mandate due to lack of funding. The lack of funding issue in this case is applied not only to discretionary items but to items that threaten the safety of the occupants. While the Local Improvement Plan and the Corrective Action Plan are monitored, the school district may not be able to achieve its goals for a variety of reasons and therefore will remain in non-compliance.

### **Pre-Monitoring**

During the year prior to the actual monitoring procedure, a pre-monitoring review is offered by the State to the local school district. The pre-monitoring review affords the local school district the opportunity to take corrective action prior to monitoring. Many school districts interviewed indicated that the pre-monitoring process was generally quite helpful to the local school district. In regard to maintenance, comments from pre-monitoring indicate work to be done by the school district to bring buildings into compliance. As described by the county personnel, these comments are specifically code related and not directed toward the actual maintenance or need for improvements of the building.

### **Relationship to Facility Planning and Management Devices**

Section 5 of the State Monitoring Code requires that school facilities be reviewed under four categories (See Chart 2) as follows:

- 5.1 *Long term maintenance plan is completed - checked against the previous year's annual budget.*
- 5.2 *Health and Life safety inspection.*
  - a. *Required approval of annual inspections by fire, safety, health, OSHA and asbestos.*
- 5.3 *Substandard spaces have been approved or listed in the annual substandard space report.*
- 5.4 *Facility Master Plan (FMP) has been completed.*

While these categories for review appear comprehensive, the planning documents [the maintenance plan (5.1) and the FMP (5.4)] appear to be reviewed only minimally during monitoring. Some county superintendents or business officials interviewed indicated that they did not review the FMP. These plans are generally not compared with actual performance according to interviews conducted for this study.

Although the long-term or five-year maintenance plan is required, its form is not specified by the compliance office. Currently, the maintenance plan is broadly defined by the State Department of Education's monitoring code to include the five building systems mentioned under Element 1. A sample maintenance plan has recently been developed by a consortium of county school superintendents and school business officials which may offer LEAs some technical assistance in developing these plans. The monitoring process checks the maintenance plan against the previous year's expenditures. This check reveals whether funds have been budgeted and expended to complete the tasks described and scheduled in the maintenance plan.

Similar to the maintenance plan, monitoring reviews the FMP to assure that the plan is complete but does not check to see if the plan is appropriate or has been applied through budget or action. The FMP is not reviewed for accuracy with existing conditions except occasionally on a voluntary basis by the county office. The review of the FMP may be more detailed if the school

district is reviewed at Level III. Only one school district interviewed for this study currently at Level III indicated that the goals in the FMP are considered mandatory by the county. No other school district indicated that monitoring required adherence with the FMP, nor is this a State requirement. The Division of County and Regional Services indicated that the FMP is checked to assure that necessary facility issues are being addressed in the plan. For example, if the local school district is currently in split session, the FMP would be checked to see if a new school is planned to address the problem.

### **Facility Spending Cycle and Monitoring**

While the monitoring process may not review building maintenance in detail, it does generate activity around school maintenance. In many districts an uneven spending cycle is created in relationship to the five-year monitoring process. Buildings are often allowed to deteriorate and/or little funds are allocated to the school building for repair and improvement during the years following a successful pass in monitoring. One or two years prior to monitoring, the local school district may begin to make plans for repairs in preparation for monitoring. After pre-monitoring, the local school districts generally increase the facility budget to take into account items identified to bring the facilities into compliance. This budgetary cycle was indicated by several superintendents and business managers during this study. This uneven spending cycle may be less a lack of planning and more related to the ability of facility managers and superintendents to negotiate maintenance expenditures during the local school board's annual budget process. This approach to maintaining the life of the building creates a lopsided effort and suggests that the maintenance cost will be greater as annual maintenance requirements are deferred.

### **(4) The Five-Year Facility Master Plan (FMP)**

#### *Key Issues*

- *There is a need for a correlation between funding and the FMP.*
- *The FMP is viewed as a useful planning tool by most local school districts.*
- *A minimal review of the content of the FMP is undertaken at the county or State level.*
- *Little or no feedback or technical assistance on the FMP is given by the county superintendent or the Bureau of Facilities Planning Services.*
- *The FMP is not monitored against the LEA's performance.*
- *The FMP is not necessarily an accurate facility needs assessment tool and is not validated by building inventory.*
- *The FMP is not being used as a dynamic planning tool. It is generally not updated annually.*

- *Little accountability exists as to the projected needs, expenditures and new construction other than at the local level.*

The State requires all school districts to submit the FMP to the county superintendent and in turn, the Bureau of Facilities Planning Services. The FMP is submitted on the same five-year cycle for all school districts (1985, 1990, 1995, etc). Monitoring of the LEAs is also conducted at five-year intervals but not in synch with the five-year FMP.

The FMP projects enrollment figures and assesses the district's ability to house the projected student enrollment. The document also projects and reports facility needs for capital improvement and new construction, not maintenance. The FMP includes an estimate of the cost of improvements and/or new construction projects. The school districts set priorities for the capital improvement needs as "immediate" or within "next five years." However, the FMP is not developed in conjunction with a school building inventory to verify information in the plan. As deferred maintenance is not included (other than capital improvements), the FMP is not a complete and accurate facility-needs assessment tool. In addition to the omission of deferred maintenance needs in the FMP, most district representatives indicated that the FMP and the long range maintenance plan are not developed or used in conjunction with each other.

Although the FMP is required in the monitoring process, the county's review of the plan upon submittal is minimal. The plan is checked at the county level to assure that the plan is complete as required. Most districts indicated that they did not receive comments from the county or the State regarding the content of the FMP.

#### **Use of the Facility Master Plan at the Local Level**

The FMP is currently used primarily as a local planning device. The State-required process of developing the FMP and the school board's subsequent approval of the FMP, implies that the local school district will confront the future cost and enrollment projections and use the plan on an ongoing basis. This is not always the case.

The FMP is often developed with consultants and not by the staff of the local school district. This is due in part to the perceived complexity of the FMP and the time required to develop the FMP. Several county superintendents and business managers raised concerns that the FMP is no more than a "paper process," as it is not being developed by the local school district. However, the majority of the local school districts indicated that the document is a useful planning device. The FMP offers important documentation for the LEAs' budget review processes. Most LEA representatives indicated that they use the FMP to justify facility expenditures to the local board.

Nearly all districts indicated the cost estimating in the FMP was only approximate and not very reliable. Many school districts indicated that while the FMP was useful, funds were not always available to carry out the goals of the plan. As a result, the FMP is often not followed. If the FMP

is not based on the reality of available funding, it becomes a paper process. Only a few school districts interviewed indicated that the FMP is updated annually.

### **Use of the Facility Master Plan at the State Level**

The Bureau of Facilities Planning Services does not review the content of the FMP. Although the information from the plans has not been used for public policy planning in a continuing way, the Bureau of Facilities Planning Services is in the process of creating a database to allow for analysis of the information.

The format of the FMP from district to district varies greatly. The requirements from the State Department of Education for the next master plan are revised with each five-year period. While some standardized forms exist and the information to be included is mandated, the format of the plan is a local decision. This open format may be useful to the local school district, but it may present a difficulty to the county or State in assessing or commenting on the information or using the aggregate information as data for public policy.

The FMP must be updated and submitted with proposed new construction plans to the Bureau of Facilities Planning Services with plan approval. The general sense from this study is that these plans are not updated and that the FMP is not being used to assess new construction proposals at the State level.

## **(5) Available Funds from State and Local Resources**

**Note:** This study reviewed funding from a perspective of the current system. As this system is in a state of change, the funding section is not developed in full detail.

### **Key Issues:**

- *State funds for debt service are not considered by the State as a long-term investment.*
- *There are no requirements for minimum maintenance funds in local budgets.*
- *There is no State annual review of school budgets against the FMP, the long-term maintenance plan, or the monitoring recommendations, other than during the monitoring process.*

There are no state funds allocated for school building maintenance and the State does not mandate local expenditures specifically for school building maintenance or improvements. Capital improvement funds are only available from the State for the equalization districts. For all districts, partial reimbursement for debt service to bonds is available. From interviews conducted for this study, it appears that, historically, the State has not viewed its contribution to the debt service as an investment in property that must be protected on an ongoing basis.

Generally, maintenance funds for buildings are grouped with operating funds. While the county and the State currently approve the local school budgets annually, they do not check the budgets against the maintenance plan or the FMP to assure that the funds are being expended in accordance with either plan. County superintendents and school business administrators clearly indicated that maintenance planning and budgeting was a matter of local decision making and policy. Only during the monitoring process is the budget checked to assure that funds designated in the school budgets for school maintenance were expended in the way described and that the work was done. Those interviewed at the county level indicated that the maintenance budget was not always checked during monitoring. Without adequate funding or the allocation of available funds, planning procedures become a "paper process" which is not connected to fiscal or political reality.

A major issue for school maintenance is the State aid reimbursement system. As this is currently being addressed with the new State aid formula, this will not be discussed at length. The State aid reimbursement system affects the ability to plan and to meet the needs of increased expenditure. Not knowing the amount of State funding that the school district would receive for the current spending year created obvious planning problems, particularly for the "discretionary" fund in the maintenance budget. Budgeting for growth in expenses in school building maintenance is limited by the reimbursement system as the school district must carry the additional expense without State aid for one year.

The Quality Education Act and the new State funding policy correct the delayed funding problem by making funds available for the current year rather than as a reimbursement. This will also be the case for debt service aid. This change in policy should significantly improve the ability of local school districts to plan and follow plans.

While new buildings are approved for compliance with State requirements, they are not approved based on the cost of ownership (ongoing maintenance). Currently, no future funds must be set aside for new or renovated buildings.

## **(6) Bureau of Facilities Planning Services, State Department of Education**

### *Key Issues:*

- *The Bureau of Facilities Planning Services has a minor role in assuring that school maintenance is performed.*
- *Slow plan review has delayed capital improvements.*
- *The State has no minimum construction cost threshold over which projects are required to be reviewed by the State. All construction or change of use plans, no matter how minor, are reviewed by the State.*

- *The State does not make ongoing inspections to assure that new construction is adequately maintained.*

The Bureau of Facilities Planning Services presently has a minor role in assuring that school buildings are maintained throughout the State. The primary focus of the Bureau of Facilities Planning Services is the review and approval of proposed buildings and the review of capital improvement projects. The State also receives substandard space reports and certifies their use as requested by the local school districts. The State receives the FMPs and participates in Level III reviews and other facility monitoring reviews on the request of the Division of County and Regional Services in the State Department of Education.

#### **Plan Review**

All school districts interviewed indicated that the delay in plan review was a serious issue. As this report is specifically about maintenance and capital improvement, the discussion of plan review is only in relationship to those issues. School building plan review in New Jersey, unlike some other states such as Florida, does not require a projection of future maintenance costs, nor is a maintenance plan required for a new building. Low maintenance construction materials are not specifically required. Following new construction, there is no post-occupancy evaluation at two- or five-year intervals to assure that the new building is being adequately maintained. Whereas, in Massachusetts, the State payment of debt service can be held back if newly constructed buildings are not adequately maintained.

There is no minimum value of construction that stimulates plan review unlike in Florida, where the minimum is a \$200,000 cost of construction. As a result, smaller capital improvement projects that involve a "change in use" require the full plan review process. School districts indicated that the plan review process causes lengthy delays in small projects resulting in increases in the cost of the project and increases in the management time required to complete the project.

An update of the FMP is required by the Bureau of Facilities Planning Services with plan review. The Bureau of Facilities Planning Services does not monitor requests for approval of new construction against the FMP. In general, there is no State level review or mandate to assure that proposed new construction meets the stated need and goals for the district.

#### **Staffing**

Many of the local school districts indicated that they believe the Bureau of Facilities Planning Services is understaffed. This comment requires further research and evaluation. The Director of the Bureau of Facilities Planning Services indicated that while the office normally offers

annual technical assistance workshops on plan review, these have been delayed in part due to understaffing and growing demands on the office.

## **Recommendations From Local School District Interviews**

The following summarizes interview responses from local school districts regarding possible improvements to the current New Jersey facility program or other modifications that would aid local school districts in maintaining their school buildings:

### **Local School Budget Approval**

Almost all districts interviewed expressed some frustration with the school budget voting process. Many recommended that the school budget voting process be eliminated or only budgets over a certain amount go to a local vote. Others suggested that the entire municipal budget should be voted on as a whole to make the local budget approval process fair and balanced with the total municipal budget.

### **Maintenance Funding**

Only a few districts commented on possible funding mechanisms for school building maintenance that the State could consider employing. One county official suggested low interest revolving loans for specific maintenance projects would be one solution.

### **County Technical Assistance and Other Facility-Related Services**

Those interviewed indicated that the county offices are helpful and that county services could be extended. These suggestions ranged from increasing personnel to moving more services to the county offices. One district recommended that county and district facility managers should be trained and certified.

### **State's Role in School Building Maintenance**

Several districts expressed the desire for less State action. One district expressed the need for more regulations to improve the usefulness of the maintenance plans. Two of the county offices and some of the local districts expressed the need for more State control, with maintenance plans reviewed annually, and closer links between the maintenance plans and annual budgets.

### **State Monitoring Process**

While most of the districts observed that the monitoring process was generally fair and helpful, two districts noted that the process of substandard space classification needed to be re-examined.

### **Agency Regulations**

Many districts recommended that assistance be given to help local school districts address increased regulations from other State and Federal agencies. It was almost unanimously

advocated that new environmental regulations should be supported with funding. Asbestos abatement and underground tank removal are the two mandates that have caused major facility budget and planning dilemmas. A need was expressed for more inter-agency communication, State interpretation of guidelines, and policy streamlining.

### **Regionalization**

A majority of the district representatives interviewed indicated that incentives to regionalize school districts would reduce school facility needs. Several identified the existence of a disincentive for regionalization in the State's policies. Some interviewees indicated that only a State mandate for regionalization would accomplish the task. The requirement of K-12 districts, as is done in Pennsylvania, was recommended as a good model. At least one urban district felt that it would benefit from regionalization.

## **Study Findings on New Jersey School Facility Programs**

Ten general study findings on NJ school facility programs are based on the research conducted, observations made by Architecture and Building Science, and interviews with school district representatives and State Department of Education administrators.

**Finding #1: School building maintenance is often deferred. There is a large deferred maintenance backlog in many school districts and often maintenance priorities are unclear.**

Insufficient funds available or inadequate planning has deferred many necessary corrective maintenance projects. Many districts have accrued large maintenance backlogs that they do not currently have the ability to diminish. Due to the large backlog and competition for limited funds, priorities are difficult to establish and "emergency" repairs become the only category of maintenance addressed in a timely way.

**Finding #2: Many local school districts are not equipped for building emergencies through appropriate budgeting, planning , or management .**

Few of the school districts interviewed maintained adequate contingency budgets or surplus funds for emergencies. However, emergency situations frequently occur, and funds to meet the immediate need are drained from operation and maintenance budgets. As a result, planned building maintenance projects must be deferred due to a lack of funding.

**Finding #3: The State does not require systemic evaluation of a local school district's need for building maintenance and repair.**

The maintenance plan, monitoring, or the FMP do not provide an assessment of the local school district's maintenance needs. The FMP addresses improvement and new construction needs

only. The State does not currently require a systemic school building inventory. In many cases, the local building stock is not inventoried on a regular basis or assessed as to the condition of its systems. Few or no guidelines or technical assistance mechanisms currently exist to assist the districts in evaluating maintenance needs.

**Finding #4: The State has not developed effective criteria for school maintenance and capital improvements.**

The existing State criteria for school building maintenance and capital improvements are not used effectively by the local school districts. There are large variations in the use of both the maintenance plan and the FMP. The criteria for developing these plans are often vague. The maintenance plan model as developed by the consortium of county facility directors is a step in the right direction, but the use of the model remains optional.

**Finding #5: There is little review of mandatory planning documents at the State or county level.**

There is currently little review by county and State officials of either the maintenance plans or the FMPs. During monitoring, both are checked, but only to see if they exist. The monitors in the county offices are not empowered to make any qualitative judgments on either plan. The previous annual budget is checked against the maintenance plan, but this carries very little weight in monitoring rating.

**Finding #6: There is no coordination among the major school facilities control mechanisms that are mandated by the State Department of Education.**

There is no coordination or direct relationship among the various State control and planning mechanisms. These include the long-term maintenance plan, the FMP, the monitoring process, and the local budgeting process. None of the planning mechanisms are related to State facilities funding. This lack of clear relationships limits the value of these mechanisms.

**Finding #7: State funding is not connected to the enforcement of priorities, criteria, or State goals.**

State funding to local school districts for operating funds, capital improvements, and debt service reimbursement is not connected to the setting of priorities for expenditure of State funds, the local district's FMP, or minimum maintenance requirements.

**Finding #8: Funds in the local budget for school maintenance are frequently considered discretionary and the allocation of those funds is not always connected to need.**

Local facilities funding is at the discretion of the local school board. There is no State protection

of critical maintenance funds. In many cases, operations and maintenance funds are seen as somewhat discretionary by local school boards. Funding for capital projects is allocated based on the ability to gain the approval of the school board or the district voters and does not always reflect capital improvement needs.

**Finding #9: Funding and local budget allocations are often insufficient.**

Districts surveyed and the counties interviewed indicated that there is insufficient funding for maintenance and corrective improvements in local funding allocations. A number of the districts interviewed are currently passing bond issues for deferred maintenance and capital improvements. This is one indicator that local operating budgets have been insufficient or that funds have not been allocated to meet growing needs. Further study and analysis is required to fully describe the unmet need; estimated from the 1985 Facility Master Plan at \$600 million. This is not a complete picture of the need (see Finding #3).

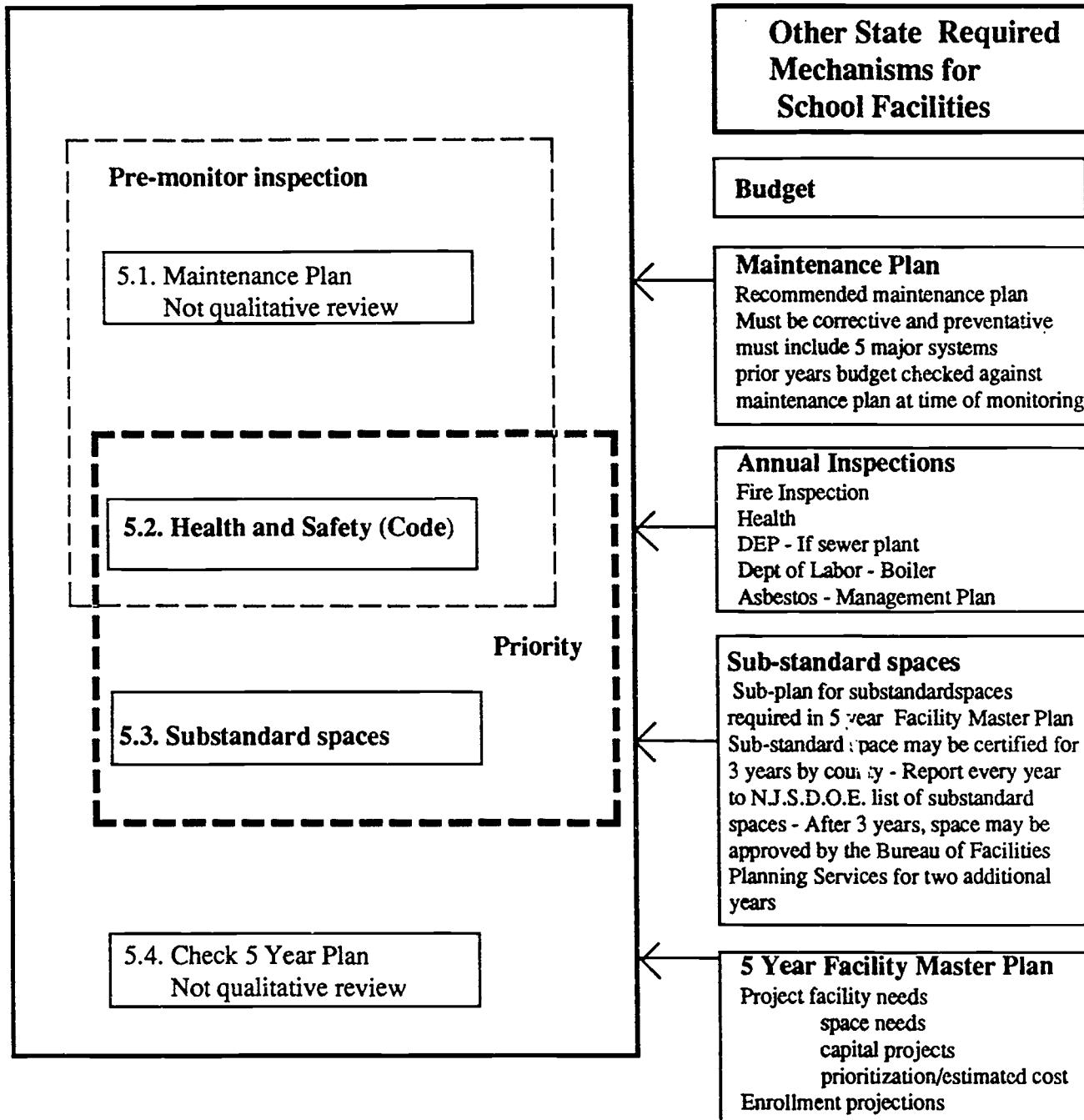
**Finding #10: Technical assistance to local school districts could be much greater.**

While most of the districts interviewed often go to the county offices for technical assistance, a common complaint from local superintendents is that the county offices appear to be understaffed or are unable to provide certain types of advice; e.g., maintenance planning and facilities management. The Bureau of Facilities Planning Services offers some technical assistance. However, this generally pertains to new construction and the plan review process. Agency regulations and lease purchase contracts are areas in need of more technical assistance and training.

## **MONITORING -**

### **Every 5 years Facility Review**

#### **Requirements from Monitoring**



**STATE FACILITY PROGRAM**

**STATE MONITORING OF  
LOCAL SCHOOL DISTRICTS FOR FACILITIES**

**CHART #2**

## **VI. Approaches To The Maintenance Of New Jersey Public Schools**

Four alternatives to the existing State school facility programs are recommended to improve the maintenance of public school buildings in the State of New Jersey.

**Approach 1: Strengthen the current New Jersey school facilities programs by coordinating key activities, making a better use of existing mechanisms, and increasing technical assistance.**

**Approach 2: Develop state initiatives to protect local school maintenance budgets.**

**Approach 3: Attach stronger maintenance requirements to state funding and to approvals for new school building construction.**

**Approach 4: Address deferred maintenance through "steady-state" funding and budgeting.**

These recommendations are based on the precedents set by other State systems and by identifying key findings about the New Jersey school facility system as presented in the previous section. These alternatives may be utilized alone or in combination with one another. Each approach requires further research and development to implement. The approaches have been developed to encourage a creative and positive effort to take place at the local level, while assuring that State funds are protected and that public education facilities are properly maintained.

A balance between adequate funding and efficient management must be reached. The large task of providing adequate public school facilities and approaching the difficult backlog of deferred building maintenance in the State of New Jersey requires more than funding. Effective management, monitoring, technical assistance, planning, and standards are essential to assure that designated facility funds are used efficiently and appropriately.

### **Assessment of Need**

The first step to address New Jersey school building maintenance should be an evaluation of the current need based on a sampling, or a comprehensive inventory and inspection of school buildings. This study was not designed to evaluate this need. The assessment of the current need and projections for future need and the identification of the areas where the need is greatest is a critical step to understanding the magnitude of the problem. This inventory or assessment of need could be conducted in coordination with information from the Facility Master Plan and the monitoring process.

### **Funding Requirements**

The four recommended approaches range from strengthening the existing system to developing

a state funding program which will address school maintenance in New Jersey over a long term. Within each of these approaches there are recommended steps which would cost little or no additional funding and steps which would require additional state funding. Some of the recommendations suggest existing state funding or aid be designated for expenditure by the local school districts for school maintenance. It should be clear that this recommendation is not an increase in funding, but rather a form of monitoring that allocated state funds are specified to adequately maintain school buildings. Where technical assistance is recommended, this change may require additional staff within the New Jersey Department of Education or a reorientation of existing staff activities.

At the time this study was conducted, new relevant legislation was being introduced and was passed by the State Legislature as the Quality Education Act in July, 1990. In part, the act overlaps with some of these recommendations.

### **Approach 1: Strengthen the current New Jersey school facilities programs.**

The New Jersey facilities system is similar to other State facility programs such as Georgia, Florida, and Maryland, in that many of the same mechanisms are used. The difference between the New Jersey approach and the other states is the lack of coordination between and among the mechanisms to form a comprehensive system. With moderate changes, these mechanisms could be strengthened and become instrumental in encouraging appropriate levels of school maintenance. From the findings of this study, it would appear that New Jersey's existing facility planning, monitoring, and budgeting mechanisms do not directly address school maintenance.

Strengthening and coordinating the existing system would increase the State's capacity to enforce its goals of adequately maintaining and protecting school buildings. The focus of strengthening the current New Jersey system should be:

- (A) To improve the use of existing mechanisms, increase coordination and better define the need for school maintenance (both deferred and current);**
- (B) To strengthen the fiscal overview of maintenance budgets;**
- (C) To increase State technical assistance and to reinforce good management at the local level;**
- (D) To increase access to information for planning and policy making through the expanded use of database systems;**
- (E) To develop incentives to encourage local school districts to address deferred maintenance;**

**(F) To review and research, from a facilities perspective, the cost/benefit of appropriate maintenance budgets and the need for the regionalization of local school districts.**

**(A) To improve the use of existing mechanisms, increase coordination and better define the need for school maintenance (both deferred and current);**

The Facilities Master Plan (FMP), a long-range maintenance plan, monitoring on a five-year cycle, and annual agency inspections are all required by the New Jersey State Department of Education for public school facilities. However, they are not adequately integrated, nor are they used to their maximum potential to improve the maintenance of school buildings. These mechanisms could be utilized better if a timely response were made to their submittal by the State and/or county. These documents should be used as a basis for technical assistance and recommendations. The mechanisms could work better together as a coordinated and complementary system to address more directly the issue of school maintenance. The State could possibly gain more staff time to attend to these documents by instituting a minimum construction cost threshold for plan review, such as done in Florida, where all projects under a \$200,000 construction cost do not require State plan review.

In general, the State does not review the FMP for quality or content. Thus, the State does not critique facility management assumptions made by the LEA. Both LEAs and county and State officials have confirmed this to be true. This "hands-off" approach to the FMP document, which projects the goals and potential funding requirements of the local school district, is an indicator of the need for clearer definition of objectives for the document and its use. While the assumptions of the LEAs may be correct, technical review of the report at the county or State level may be able to identify alternatives that have not been considered by the LEA and may offer cost savings or other benefits. The Maryland program reviews all five-year plans in detail with the local school district. The Florida and Georgia programs use their Master Facility Plans as the basis for State-funded projects. The FMP, particularly given the significant time, cost, and effort devoted by the LEAs to developing the document, could be a far more useful tool.

From information gathered in this study, the FMP appears to be predominantly a space-planning device. Cost estimating for capital improvements is considered to be very general and not realistic for budgeting purposes. The FMP is not coordinated with the long-range maintenance plan that is required by monitoring. The FMP refers only to new construction and capital improvement needs. There is no check on the accuracy of the FMP through a facility inventory device. By looking at the FMP, therefore, only part of the picture is presented.

The FMP is not checked by the State against local school budgets or updated although updating is required with new construction. The FMP could be a far more dynamic device if used as an ongoing monitoring and technical assistance device to track a local school district's progress and identified need.

**(B) To strengthen the fiscal overview of maintenance budgets;**

A State review of annual budgets could significantly reinforce school building maintenance by comparing the annual budget to the long-range maintenance plan, the FMP and monitoring recommendations, if any, for facilities. These documents could be the basis for the evaluation of annual budget. The annual budget thus becomes an indicator of the local school district's intention to meet its maintenance and capital improvement needs.

**(C) To increase State technical assistance and to reinforce good management at the local level;**

Increased State and county technical assistance would help to reinforce good management techniques at the local level and would set standards for approaching problems. In particular, needs assessment, planning, development of maintenance plans, and work order organization are all areas in which significant assistance could be given to the local school districts. Developing an adequate maintenance plan that responds to needs involves long and short term planning. The wide range of maintenance plan types observed during this study is an indicator that there is a need for leadership and assistance in this area. The interviews taken in this study indicate that a majority of the districts use the county technical assistance, and many interviewees indicated that the county offices are understaffed.

The development of handbooks and information guides for facility planning of public school buildings would extend the technical assistance capability of the State. Existing handbooks are out-of-date and do not relate to current State school facility regulations and procedures. Handbooks on new construction techniques and program development should include school maintenance criteria. A specific handbook on school maintenance would also be useful to LEAs.

**(D) To increase access to information for planning and policy making through the expanded use of database systems;**

The various mechanisms, the FMP, the long-range maintenance plan, annual school budgets, annual agency inspections, and documents and reports from monitoring and pre-monitoring could be a useful database on the local, county and State level. An appropriate database design would assist local school districts in assessing their needs, goals, and achievements. The database would allow for a comparison of school districts as a measure of performance. The aggregate information could provide a valuable base for setting standards, policy decisions, and evaluation of need. A reasonably sophisticated database would create study models from which standards and policies could be developed.

**(E) To develop incentives to encourage local school districts to address deferred maintenance;**

Deferred maintenance incurs significant cost for local school districts, particularly those that have allowed deterioration to occur unchecked for many years, such as those districts now in Level II or Level III of the monitoring process. A comprehensive local plan to address deferred maintenance could accompany the FMP and be specifically monitored by the State. The development of a local maintenance plan that includes a strategy to resolve accumulated facility problems could be rewarded by incentives such as additional funding. These incentives could be justified by a cost/benefit analysis comparing the "up-front" funding for maintenance with the replacement cost of a deteriorating building.

**(F) To review and research, from a facilities perspective, the cost/benefit of appropriate maintenance budgets and the need for the regionalization of local school districts.**

Few school districts interviewed indicated that they use cost / benefit analyses to interpret policy or present arguments to the local school board regarding budget decisions. There appears to be a significant need to research cost /benefit indices and to develop useful analytical tools for both State and local policy decision making. The Building Research Board of the National Research Council's report, *Committing to the Cost of Ownership: Maintenance and Repair of Public Buildings*, indicated that there are few cost/benefit analyses available for review and that most are anecdotal. As New Jersey looks toward future planning and policy decisions for school facilities, it may be timely to develop standards for analysis of State investment in maintenance, renovation, and new school construction.

Another key issue that requires further research is the apparent need for regionalizing small local school districts. This issue was raised both by county offices and local school districts. The ability to increase management expertise, take advantage of economies of scale, and utilize space better would be served by consolidation. In terms of school building maintenance, duplication of effort at a small scale would be reduced through regionalization. Many states have sponsored extensive regionalization efforts to improve facilities, for example, Georgia and Pennsylvania. This topic was not specific to the subject of this study and requires further investigation.

## **Approach 2: Develop state initiatives to protect local school maintenance budgets.**

School maintenance funds are frequently considered discretionary by local school boards. This was indicated in many of the interviews conducted by this study and is confirmed by the literature reviewed at the beginning of this report. (See The Building Research Board of the National Research Council's report, *Committing to the Cost of Ownership: Maintenance and Repair of Public Buildings*). The competition between necessary school requirements for limited operating funds is both a management and a funding issue. When building maintenance is deferred, it can lead to far greater costs and may shorten the life of the building thereby threatening the State and local investment. As previously discussed, there is a common cycle in maintenance budgeting related to monitoring. A steady and assured budget that meets building maintenance needs could represent significant cost savings in the long run and assure an adequate educational environment in the short run.

The State of New Jersey could take a stronger role in assuring that local school districts include adequate maintenance budgets to protect the life of the school building stock. By setting requirements for school maintenance budgets, the optional nature of the local process would be reduced. The following options could be implemented:

- (A) **Require a minimum maintenance budget to be included in the annual local budget (such as is done in California and was done previously in Florida's "Maintenance of Effort" program).**
- (B) **Research the appropriate maintenance budget to be included in the local budget as a percentage of the cost of building replacement and/or other recommended formula for arriving at a minimum maintenance budget (may include factors such as age of school buildings).**
- (C) **Target state funds specifically for school building maintenance.**
- (D) **Develop a better description of maintenance need through an inventory process (possibly via an annual inspection, the FMP, or the monitoring process).**

As discussed in Section IV on New Jersey, the Quality Education Act of 1990 and the new foundation funding formula suggests that a minimum budget be maintained for school facilities. However, an annual school facilities expenditure is not required by this legislation.

**Approach 3: Attach stronger maintenance requirements to state funding and to approvals for new school building construction.**

Assurance of ongoing building maintenance could become a component of plan approval for new school building construction for which State funds are invested. This could easily be achieved by including maintenance requirements as an aspect of approval of new construction, substantial renovation, and capital improvements. The following could be done to strengthen and protect the State's investment in local school facilities:

- (A) Require maintenance plans for proposed new construction with the optional use of a computerized analysis of the annual cost of maintenance based on materials, square footage, etc.
- (B) Research low maintenance construction materials to be incorporated in standards for new school buildings. Give incentives for innovative new construction with low maintenance cost.
- (C) Link State debt service reimbursements, capital improvement funds, and operating costs to State monitoring of local building maintenance; for example, a shared ownership approach similar to Massachusetts and California.
- (D) Make biennial post-occupancy reviews of new school buildings that are partially financed by the State to assure that the State's investment is protected through adequate maintenance.
- (E) Make available technical assistance to aid local school districts, particularly guide books and other reference material that can be used in a self-help and dynamic way.

**Approach 4: Address deferred maintenance through "steady-state" funding and budgeting.**

Deferred maintenance may have developed over as much as a fifteen-year time frame and cannot be solved in a year or two. Deferred building maintenance could be addressed with a long-term plan including incentives to LEAs. A long-term program with "steady-state funding" would become a commitment to address the problem. Public policy can then be set for a ten-year time frame, and local school districts can develop achievable plans. This approach is similar to the facilities program in Georgia in which the State asks local school districts to develop a long-term plan to bring all school buildings to a twenty-year life expectancy. This approach is also recommended by the Building Research Board Study, *Committing to the Cost of Ownership*.

The basis of maintenance budget expenditures would be a combination of assessed deferred

maintenance need (accumulated deferred maintenance) plus the cost of current maintenance based on replacement value of the building stock. Once the overall State-wide need is assessed, an initial infusion of deferred maintenance funds would be committed in the first year of the program. This infusion of funds could be used to reduce the outstanding deferred maintenance need by some target amount, for example, ten percent. Over a ten-year period, funds could be made available to continue to address the deferred maintenance at a "steady state" reduction of need. A long-term reduction of deferred maintenance would be set at an optimal goal, perhaps 60 percent reduction over a ten-year time frame. It is important to note that a 100 percent reduction of deferred maintenance projects may not be economical or desirable. A certain level of deferred maintenance is acceptable to maximize the economic efficiency of maintenance programs. It would be a realistic goal to reduce deferred maintenance based on affordability and the long-term retirement of existing buildings.

In addition to the deferred maintenance funding, a standard would need to be set for current maintenance. This standard would need to be researched. Two to four percent of the replacement value of a building is considered a minimum annual maintenance budget cost by the Building Research Board. The combination of the deferred maintenance funds and the current maintenance funds would generate the appropriate amount to be included in LEA budgets and funded by a combination of State incentive funds and local operating budget.

This is the skeleton of an aggressive program that would need to be developed in detail. The strengths of the program are that it allows for both long-term planning by the LEA and a sense of ability to achieve the goals of that plan in partnership with the State in a realistic time frame. The program would provide incentives to LEAs to participate in improving and maintaining their existing buildings.

A "steady-state" deferred maintenance funding program would :

- (A) **Assess the cost of deferred maintenance in the state.**
- (B) **Evaluate the replacement cost of school buildings.**
- (C) **Arrive at a ten-year goal to reduce deferred maintenance throughout the state.**
- (D) **Make available state funds for deferred maintenance projects.**
- (E) **Require ten-year plans from LEAs specifically to address deferred maintenance.**
- (F) **Require minimum local school budgets for current maintenance expenditure and require a local current maintenance plan.**
- (G) **Monitor progress on deferred maintenance with site inspections correlated with local plans.**

## **VII. Recommendations of the Commission on Business Efficiency of the Public Schools**

From the time this study was completed and accepted by the Commission on November 1, 1990 until early April, 1991, the Work Program Steering Subcommittee of the Commission considered the approaches suggested in the report and developed recommendations for consideration by the full Commission. On May 6, 1991, the Commission considered the suggestions of the Subcommittee and adopted the findings and the recommendations detailed below.

While the Commission recognizes the need for increased expenditures to reduce a significant existing backlog of deferred maintenance and necessary school facility improvements, the current financial condition of the State does not permit full and immediate relief of this problem. The options suggested in the report on "steady-state" funding, while laudable, are not feasible given the current financial condition of the State. However, an effort at some level must begin or the price of meeting this challenge will rise even higher. For this reason, the Commission strongly advocates increased direct State support of facilities and recommends:

*Recommendation #1, the enactment of Senate Bill No. 2723 sponsored by Senator Feldman and Assembly Bill No. 3604 sponsored by Assemblymen Zangari and Salmon which provide \$600 million, to aid New Jersey school districts in constructing or renovating facilities, and*

*Recommendation # 2, that the State restrict the use of the facilities component of the Quality Education Act to facilities uses only. At present, only the capital outlay portion is restricted to facilities use. The Commission proposes that the portion assigned to current expense be restricted to expenditures within facilities-related line items. Monies thus budgeted but not expended in one year should be carried forward and budgeted for such line items in the following year and added to the current expense portion generated in that year. The budgeted funds could not be transferred for other purposes except that the County Superintendent may allow such transfers if a district's maintenance plan is completed.*

Frequently mentioned in the report is the need for improved and/or increased technical assistance to school districts on topics concerning facilities. The Commission finds that increased technical assistance can help school districts avoid future maintenance and facilities expenditures by improving the level of expertise and thus the quality of facility planning on the local district level and recommends:

*Recommendation #3, that the Legislature direct the Department of Education to develop and implement a plan for delivering improved technical assistance to school districts in facility planning and maintenance, and*

*Recommendation #4, that the Legislature direct the Department of Education to develop, distribute and promote the use of manuals and/or guidebooks on the topics of school facility design and facility needs assessment including a special volume covering the design of urban school facilities, and appropriate \$300,000 to the Department for such purpose.*

The Commission concurs in the report's observation that current New Jersey school facilities program is not "sufficiently coordinated." The Commission recognizes that the Department of Education is aware of this problem and recommends:

*Recommendation #5, that the Five Year Facilities Master Plan be redesigned to include plans for long-term maintenance as well as new construction, and*

*Recommendation #6, that the Legislature direct local school boards to include sufficient funds in their budgets to support their Five Year Facility Maintenance Plans and require such support before districts' budgets can be approved by the Commissioner of Education.*

The Commission recognizes that not enough information is available on the current condition of school facilities. The Commission believes that such information would assist State policy makers in efficiently targeting funds to the areas of greatest need. For this reason the Commission recommends:

*Recommendation #7, that the Legislature direct the Department of Education to conduct a survey of all Public School Facilities in the State. Such a study should be conducted in a uniform manner, established by the Department of Education, in all districts to guarantee: 1) consistency of results, and 2) equity in the distribution of funds based on need.*

The Commission agrees with the report in its identification of a lack of "inter-agency communication, State interpretation of guidelines, and policy streamlining" as a problem with regulations from State and Federal agencies. However, the Commission finds that this problem has an impact beyond school districts. Conflicting regulations, especially those on environmental and health issues, create problems for school districts, local municipalities, private business and home owners. For this reason, the Commission recommends:

*Recommendation #8, that the Governor, possibly through his office of Policy and Planning: 1) review the problems of conflicting State and Federal regulations and the processes of disseminating these regulations and their enforcement; 2) develop and implement a streamlined and coordinated process for the dissemination and enforcement of these regulations, and 3) develop and implement a process for identifying and resolving conflicts in these regulations prior to their implementation.*

Through cooperation with Governor's office and the Legislature, the Commission will seek the implementation of these recommendations.

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## **Sample Questionnaire**

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**ARCHITECTURE AND BUILDING SCIENCE  
NEW JERSEY INSTITUTE OF TECHNOLOGY**

# New Jersey Institute of Technology

## State Facilities Questionnaire

### Purpose of Survey

The following fifty state survey is part of a study by the New Jersey Institute of Technology for the Commission on Business Efficiency of the Public Schools for the State of New Jersey in cooperation with the New Jersey Department of Education. The survey is intended to identify any existing state programs, requirements or criteria for maintenance programs and to learn how they are funded, operate and are reviewed by your state. Secondly, this survey aims to identify any state mechanisms which serve to equalize facility conditions between disparate school districts. If your state is now addressing either area through programs, policy or legislation, we would appreciate your filling out this questionnaire as well as sending us any information such as guidelines, charts, brochures, appropriate initiating legislation or administrative procedures. Also, please send any other materials that you may deem appropriate. If any of the materials (such as handbooks, guidebooks, etc.) carry a cost, please send them and bill us appropriately. If your state is not currently addressing these issues, but is now considering doing so, we would like to find out what models you are considering. Please return the completed surveys and additional information by June 1, 1990. A compilation of the survey results will be made available to those who participate.

*Thank you in advance for participating in our effort. By filling out this questionnaire, you will contribute to the knowledge base surrounding these two issues and will assist the State of New Jersey in addressing its policy decisions.*

### Background Information

Name of state: \_\_\_\_\_

Number of school districts: \_\_\_\_\_

Gross enrollment: \_\_\_\_\_

Average expenditure per pupil: \_\_\_\_\_

Your name: \_\_\_\_\_

Telephone number: (      ) \_\_\_\_\_

## Part 1 - General Information

1. Does your state employ policies, guidelines or programs that serve to equalize quality in the provision of school facilities between disparate school districts in your State? yes \_\_\_\_\_ no \_\_\_\_\_
2. Does your state have any statewide school building maintenance policies, guidelines or programs to insure that adequate maintenance is being performed on the state's school building stock? yes \_\_\_\_\_ no \_\_\_\_\_
3. Does your state have minimum facility standards for all school districts? yes \_\_\_\_\_ no \_\_\_\_\_
- 4a. Does your state provide funds for school building maintenance? yes \_\_\_\_\_ no \_\_\_\_\_
- 4b. for capital improvements or rehabilitation? yes \_\_\_\_\_ no \_\_\_\_\_
- 4c. for new school construction? yes \_\_\_\_\_ no \_\_\_\_\_
5. Does your state have control or overview mechanisms to enforce the implementation of facility standards or that insure that adequate maintenance is being performed ? yes \_\_\_\_\_ no \_\_\_\_\_
6. If your state does not currently have policies, guidelines or procedures addressing either statewide school building maintenance or school building quality equalization, are you now considering doing so? yes \_\_\_\_\_ no \_\_\_\_\_  
*If yes, please send any appropriate information as well as the name and telephone number of a person we may contact to compare notes.*

Name \_\_\_\_\_ Telephone (      ) \_\_\_\_\_

## **Part 2 - Specific Programs**

*If your state has programs, policies or guidelines which address either a statewide school building maintenance system or which provide an equalization effect in the provision of school facilities, please fill out the rest of this questionnaire. If not, please return Part 1 for the purposes of our survey.*

### **A. Criteria and Standards**

**1a.** Does your state recommend or mandate construction type, materials and/or cost criteria for capital improvements or new school construction? yes \_\_\_\_\_ no \_\_\_\_\_

**1b.** for state funded school maintenance? yes \_\_\_\_\_ no \_\_\_\_\_

*If yes, please describe and attach recommendations or criteria:  
(attach additional sheets as required)*

**2a.** Has your state established criteria to insure that districts operate adequate maintenance programs? yes \_\_\_\_\_ no \_\_\_\_\_

*If yes, please describe and attach criteria:*

**2b.** How are district maintenance budgets monitored?

**3.** Does your state have a set of criteria to assist districts in evaluating when to replace a building, and when to substantially rehabilitate a building? yes \_\_\_\_\_ no \_\_\_\_\_

*Please describe and attach criteria:*

4. What are your state's criteria in the following areas, (if established by your state)?

Square footage per student: \_\_\_\_\_

Maximum pupil/teacher ratios: \_\_\_\_\_

Expenditure per student: \_\_\_\_\_

Minimum classroom size: \_\_\_\_\_

5. Does the state have any additional criteria pertaining to the quality of the school environment (such as lighting levels, temperature control, etc.)?  
*If so, please describe and attach criteria:*

yes \_\_\_\_ no \_\_\_\_

## B. Funding

1a. What is your state's most recent gross annual budget for school building aid (facilities only)?

\$ \_\_\_\_\_

1b. How much of this budget (in dollars) do you estimate goes to support facility bonded indebtedness for maintenance or capital improvements?

\$ \_\_\_\_\_

2a. What percentage of state funding appropriated to a district for a given project goes to cover state administrative overhead?

\_\_\_\_\_ %

2b. to districts to cover planning, development or other soft costs?

\_\_\_\_\_ %

2c. to actual maintenance or construction?

\_\_\_\_\_ %

3a. What school facility funding formulas exist in your state?

*Please describe and attach any descriptive materials:*

3b. Do any of these school facility funding formulas provide an equalization effect, consider socioeconomic variables or consider economic need?

yes \_\_\_\_ no \_\_\_\_

*If yes, please describe:*

4a. What is the maximum percentage of total project cost your state will

contribute for a new construction project, given the range of funding programs available? \_\_\_\_\_ %

**4b.** to a capital improvement project?

*Please attach any descriptive materials on funding programs:* \_\_\_\_\_ %

**4c.** How is the amount of state contribution determined?

*Please describe:*

**5a.** Does your state allow lease-purchase arrangements in new school construction?

yes \_\_\_\_\_ no \_\_\_\_\_

**5b.** How many districts are currently participating in lease-purchase?

\_\_\_\_\_ districts

**5c.** What mechanisms exist at the state level to determine or restrict the characteristics of lease-purchase contracts?

*Please describe and attach materials:*

**6.** Does the State offer incentives for innovative maintenance programs?

*If yes, please describe the incentives and name any innovative districts.*

yes \_\_\_\_\_ no \_\_\_\_\_

**7.** Is state funding available to assist school districts with specific maintenance needs such as indoor air quality, energy conservation, lighting, asbestos removal, etc.?

yes \_\_\_\_\_ no \_\_\_\_\_

**8a.** What would you say is the most commonly used local funding mecha-

nism (local taxes, county taxes, bond issues, or other) through which local districts in your state receive money for maintenance budgets or for capital improvements?

**8b.** for major renovations or new construction?

**8c.** Does your state offer assistance to local school districts in developing local funding mechanisms?

yes \_\_\_\_\_ no \_\_\_\_\_

*If yes, please explain (attach additional sheets as necessary)*

**9.** Are state funds appropriated to local districts for maintenance or capital improvements distributed on a reimbursement basis, where a district must first complete the maintenance or improvement work before funds are released, or is the funding given through direct appropriation, before the work is completed?

- reimbursement
- direct funding
- combination of both
- other

### C. Overview

**1a.** Are school districts required to submit a Maintenance Plan, a Facility Master Plan or any other long term plan related to school facilities on a regular basis?

yes \_\_\_\_\_ no \_\_\_\_\_

**1b.** How often are the plans submitted?

**1c.** How successful are districts in implementing these plans?

- very successful  
 fairly successful  
 average  
 somewhat successful  
 not successful

**1d.** What types of information do the districts submit?

*Please describe and attach sample plan and any available descriptive materials:*

**2a.** What mechanisms exist in your state to insure that state monies given to local districts capital improvements or new construction are being used in the way in which the monies were intended?

**2b.** What mechanisms exist to insure that state allocated maintenance funds are being used as intended?

**3.** Does the State take any action with local districts for not maintaining their facilities? What is the maximum penalty a district could receive?  
*Please describe:*

yes \_\_\_\_\_ no \_\_\_\_\_

**4a.** Does your state keep an inventory of school facilities?

yes \_\_\_\_\_ no \_\_\_\_\_

**4b.** Does this inventory provide detailed information as to the condition of the buildings?

yes \_\_\_\_\_ no \_\_\_\_\_

**4c.** Does the inventory keep data on existing building characteristics?

yes \_\_\_\_\_ no \_\_\_\_\_

**4d.** How often is the inventory taken?

**4e.** How does the inventory system operate?

\_\_\_\_\_ months

*Please describe and attach a sample form and any other descriptive materials:*

**5a.** Does your state rate school facilities as to their existing condition?

yes \_\_\_\_\_ no \_\_\_\_\_

**5b.** What are the criteria and categories for this rating system?

*Please describe and attach materials (attach additional sheets as necessary):*

**6a.** Does your state take any action with districts for non-compliance with minimum space standards, square footage requirements, or environmental quality criteria?

yes \_\_\_\_\_ no \_\_\_\_\_

**6b.** What amount of time is given to the districts as a grace period to comply with these standards?

**6c.** What is the maximum penalty a district could receive?

**7.** What staff position or mechanism provides local overview of school facilities at the county level and what is their relationship to the state school facilities division?

#### **D. Staffing**

**1.** How many people are employed in your state educational facilities department? \_\_\_\_\_ people

**2a.** How many of these people specifically address issues of school building maintenance? \_\_\_\_\_ people

**2b.** of school facility oversight or inventory? \_\_\_\_\_ people

**3.** How many state staff people with school facilities responsibilities are employed in regional offices? \_\_\_\_\_ people

## **E. Additional Comments**

**1.** If there are any additional comments you would like to include, please do so.

*Attach as many sheets as necessary.*

**2.** If there are any other materials or documents which you feel may be relevant or helpful, please send with the survey.

*Use the enclosed return address envelope. If materials and information are too large for the envelope please send parcel post, C.O.D.*

*Thank you again for taking the time to fill out this survey and to compile the materials. The information you have provided will be of great use to the State of New Jersey and to the purposes of our study, and is deeply appreciated.*

# **APPROACHES TO SCHOOL MAINTENANCE:**

*Assuring the Future Life of School Building in New Jersey*

A Study for the  
**New Jersey**  
**Commission on Business Efficiency of the Public Schools**

# **Addendum**

ARCHITECTURE AND BUILDING SCIENCE  
NEW JERSEY INSTITUTE OF TECHNOLOGY

November 1, 1990

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**Matrix I: 50 State Matrix**

**Matrix II: State Facility Program Matrixes**

**Matrix II-1:** Data

**Matrix II- 2:** Facility Plans

**Matrix II- 3:** Facility Criteria

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**Matrix III: New Jersey School District Matrixes**

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**Index:** Material Received

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ARCHITECTURE AND BUILDING SCIENCE  
NEW JERSEY INSTITUTE OF TECHNOLOGY

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**50 STATE  
MATRIX**

ARCHITECTURE AND BUILDING SCIENCE  
**NEW JERSEY INSTITUTE OF TECHNOLOGY**

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**STATE FACILITY PROGRAM**  
**FIFTY STATE OVERVIEW**

**MATRIX 1**

STATE	State Facility Program	Recent Gross Enrollment	* Number of School Districts	* Recent Annual State Facilities Budget	State Building Maintenance Programs
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					**School Funding	School Facility Policy	Equalization Policy	Minimum School Facility Standards	Pending Policy Programs
<b>ALABAMA</b>	Moderate	724,751	129	\$228,808,150	None	NC, CI, & M	Pending	None	No
<b>ALASKA</b>	Moderate	* 106,481	55	\$142,796,000	None	NC, CI, & M	No	Yes	No
<b>ARIZONA</b>	No	* 660,259	238	\$0	None	No	No	None	No
<b>ARKANSAS</b>	Moderate	434,960	329	\$10,000,000	None	No	No	None	No
<b>CALIFORNIA</b>	Active	4,618,120	1,007	\$2,000,000,000	Yes	NC, CI, & M	Yes	Yes	Yes
<b>COLORADO</b>	No	\$60,236	176	\$0	None	No	No	None	No
<b>CONNECTICUT</b>	Moderate	* 468,847	166	\$95,000,000	None	NC and CI	-	Yes	-
<b>DELAWARE</b>	Active	96,629	19	\$17,000,000	Yes	NC, CI, & M	Yes	Yes	No
<b>DISTRICT OF COLUMBIA</b>	Active	81,301	1	\$27,000,000	Yes	NC, CI, & M	No	Yes	No
<b>FLORIDA</b>	Active	2,000,000	67	\$359,062,253	Yes	NC, CI, & M	No	Yes	Yes
<b>GEORGIA</b>	Active	1,123,620	186	\$143,629,343	Yes	NC, CI, & M	Yes	Yes	No
<b>HAWAII</b>	Active	170,000	1	\$160,000,000	Yes	NC, CI, & M	Yes	Yes	Yes
<b>IDAHO</b>	No	212,000	115	\$0	None	No	No	Yes	Yes
<b>ILLINOIS</b>	Moderate	1,764,000	972	\$33,823,866	None	NC & CI	Yes	Yes	No
<b>INDIANA</b>	No	952,247	303	\$0	None	No	No	None	No
<b>IOWA</b>	No	* 481,286	433	\$0	None	No	No	None	No
<b>KANSAS</b>	No	430,864	304	\$0	None	No	No	None	No
<b>KENTUCKY</b>	Moderate	* 642,778	177	\$13,542,800	None (2 years-90-91)	NC & CI	Yes	Yes	Yes

STATE FACILITY PROGRAM  
FIFTY STATE OVERVIEW

MATRIX 1

STATE	State Facility Program	Recent Gross Enrollment	* Number of School Districts	Recent Annual State Facilities Budget
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				State School Building Maintenance Programs	**School Facility Funding Programs	Equalization Policy	Minimum School Facility Standards	Pending Policy Programs
<b>LOUISIANA</b>	No	778,900	66	\$0	None	No	None	No
<b>MAINE</b>	Moderate	213,798	210	\$94,200,000	None	NC, CI, & M	Yes	Yes
<b>MARYLAND</b>	Active	698,806	24	\$80,470,000	Yes	NC, & CI	Yes	None
<b>MASSACHUSETTS</b>	Moderate	827,387	359	\$127,000,000	Limited	NC, & CI	Yes	None
<b>MICHIGAN</b>	Moderate	*1,681,880	561	\$130,000,000	None	NC,CI, & M	-	Recommendations only
<b>MINNESOTA</b>	Moderate	*711,134	436	\$23,000,000	Yes	NC,CI & M	-	Yes
<b>MISSISSIPPI</b>	Moderate	477,441	152	\$10,000,000	None	NC, & CI	Yes	-
<b>MISSOURI</b>	Minimal	807,934	544	\$0	None	No	Yes	No
<b>MONTANA</b>	Moderate	*153,327	549	Varies - mixed with operating funds	None	CI & M	-	Yes
<b>NEBRASKA</b>	No	269,861	862	\$0	None	No	None	No
<b>NEVADA</b>	No	*161,239	17	\$0	None	No	None	-
<b>NEW HAMPSHIRE</b>	Moderate	169,000	170	\$12,760,000	Yes, guidelines	NC & CI	No	Yes
<b>NEW JERSEY</b>	Moderate	1,076,005	602	\$121,123,000	None	NC, CI, & M	Yes	Yes
<b>NEW MEXICO</b>	Active	*281,943	88	\$12,705,000	Yes	NC, CI & M	Yes	Yes
<b>NEW YORK</b>	Active	2,537,669	721	\$579,506,300	Yes	NC & CI	Yes	Yes
<b>NORTH CAROLINA</b>	Active	1,103,631	140	\$60,209,000	Yes	NC, CI, & M	Yes	Yes
<b>NORTH DAKOTA</b>	No	119,355	296	\$0	None	No	Yes	No

\* National Center for Education Statistics: Digest of Education Statistics 1990, 26th Edition: US Department of Education, Office of Research and Improvement; NCES 89-643  
\*\* NC: New School Construction; CI: Capital Improvements to School Buildings; M: School Building Maintenance

STATE FACILITY PROGRAM  
FIFTY STATE OVERVIEW

MATRIX I

STATE	State Facility Program	Recent Gross Enrollment	* Number of School Districts	Recent Annual State Facilities Budget	**School Building Maintenance Programs
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STATE	State Facility Program	Recent Gross Enrollment	* Number of School Districts	Recent Annual State Facilities Budget	**School Building Maintenance Programs	State School Facility Funding	Funding	Equalization Policy	Minimum School Facility Standards	Pending Policy
OHIO	Moderate	1,764,426	613	\$25,000,000	None	NC		Yes	Yes	Yes
OKLAHOMA	Moderate	\$74,616	609	\$0	Yes	NC & CI	No	None	No	No
OREGON	No	441,998	304	\$0	None	No	No	None	No	No
PENNSYLVANIA	Moderate	1,600,000	501	\$142,800,000	None	NC & CI	Yes	None	No	No
PUERTO RICO	Active	670,000	1	-	Yes	NC, CI, & M	Yes	Yes	Yes	Yes
RHODE ISLAND	Active	133,585	37	\$5,821,676	None	NC, CI, & M	Yes	None	No	No
SOUTH CAROLINA	Moderate	614,478	91	\$21,048,630	None	NC, CI, & M	Yes	Yes	Yes	Yes
SOUTH DAKOTA	No	140,256	191	\$0	None	No	No	None	No	No
TENNESSEE	Moderate	823,783	141	\$11,800,000	None	NC, CI & M	None	Yes	No	No
TEXAS	No	3,300,000	1062	Indirect funding through operations	None	CI & M	No	None	Yes	Yes
UTAH	Moderate	*415,944	40	\$6,500,000	None	NC & CI	None	None	None	No
VERMONT	Moderate	*92,112	276	\$9,000,000	Yes	NC & CI	Yes	Yes	-	-
VIRGINIA	Moderate	985,031	135	Capital Loan Program	None	NC, CI, & M	Yes	Yes	No	No
WASHINGTON	Moderate	805,919	296	\$20€,300,000	None	NC, CI, & M	Yes	Yes	Yes	Yes
WEST VIRGINIA	Moderate	*351,837	55	\$84,250,000	Yes	NC & CI	Yes	Yes	Yes	Yes
WISCONSIN	Moderate	*767,819	430	'Tied to operating funds	NC, CI, & M	Yes	Yes	No	No	No
WYOMING	No	97,172	49	Emergency Funds Only	NC & CI	No	No	No	No	No

\* National Center for Education Statistics; Digest of Education Statistics 1990, 26th Edition; US Department of Education, Office of Research and Improvement; NCES 89-643  
\*\* NC: New School Construction; CI: Capital Improvements to School Buildings; M: School Building Maintenance

**MATRIX II:  
STATE FACILITY  
PROGRAM  
MATRIXES**

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ARCHITECTURE AND BUILDING SCIENCE  
**NEW JERSEY INSTITUTE OF TECHNOLOGY**

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**STATE FACILITY PROGRAM  
DATA:**

**MATRIX II-1**

<b>STATE</b>	<b>Most Recent Gross Annual Facilities Budget ('89-'90)</b>	<b>School District Organization</b>	<b>**Number of School Districts</b>	<b>*Number of Schools ('87-'88)</b>	<b>Recent Gross Enrollment</b>	<b>****Average State Facilities Expenditure per Pupil - ('88-'89)</b>	
						<b>State Education Expenditure per Pupil Total</b>	<b>State Education Expenditure per Student</b>
<b>ALABAMA</b>	\$228,808,150	City & County Districts	129	1,285	724,751	\$2,983	\$316.33
<b>ARKANSAS</b>	\$10,000,000	Municipal and Rural Districts	329	1,101	434,960	\$3,280	\$22.99
<b>CALIFORNIA</b>	\$2,000,000,000	Independent Districts	1,007	7,200	4,618,120	\$4,214	\$433
<b>DELAWARE</b>	\$17,000,000	Independent Districts	19	167	96,629	\$5,506	\$176
<b>DISTRICT OF COLUMBIA</b>	\$27,000,000	Single School District	1	188	81,301	\$6,730	\$332
<b>FLORIDA</b>	\$358,062,253	County Districts	67	2,379	2,000,000+	\$4,491	\$180
<b>GEORGIA</b>	\$143,629,343	County and City Districts	186	1,724	1,123,620	\$3,769	\$128
<b>HAWAII</b>	\$160,000,000	Single State District	1	229	170,000	\$4,301	\$941
<b>ILLINOIS</b>	\$33,823,866	County, Independent & Municipal Districts	972	4,200	1,764,000	\$4,795	\$19
<b>MAINE</b>	\$94,200,000	Municipal & Regional Districts	210	749	213,798	\$4,673	\$440
<b>MARYLAND</b>	\$80,470,000	County Districts	24	1,206	698,806	\$5,708	\$115
<b>MASSACHUSETTS</b>	\$127,000,000	Municipal & Regional Districts	359	1,795	827,387	\$6,004	\$153
<b>MISSISSIPPI</b>	\$10,000,000	City, Municipal and Rural Districts	152	955	477,441	\$2,796	\$21
<b>NEW JERSEY</b>	\$121,123,000	Municipal & Regional Districts	602	2,245	1,076,005	\$7,204	\$112
<b>NEW YORK</b>	\$579,506,300	Municipal & Regional Districts	721	3,971	2,537,669	\$7,848	\$228
<b>NORTH CAROLINA</b>	\$60,209,000	Independent Districts Capital fund & critical needs	140	1,952	1,103,631	\$3,862	\$55

STATE FACILITY PROGRAM  
DATA:

MATRIX II-1

STATE	Most Recent Gross Annual Facilities Budget ('89-'90)	School District Organization	*Number of School Districts	*Number of Schools ('87-'88)	Recent Gross Enrollment	***Current Total State Education Expenditure per Pupil - ('88-'89)	****Average State Facilities Expenditure per Student
<b>OHIO</b>	\$25,000,000	City, County & Independent Districts	613	3,743	1,764,426	\$4,019	\$14
<b>PENNSYLVANIA</b>	\$142,800,000 For capital improvements	Municipal & Regional Districts	501	3,293	1,600,000	\$5,475	\$89
<b>RHODE ISLAND</b>	\$5,821,676 [Fiscal Year '89]	Municipal Districts	37	298	133,585	\$5,848	\$44
<b>SOUTH CAROLINA</b>	\$21,048,630	Regional Districts	91	1,103	614,478	\$3,740	\$34
<b>TENNESSEE</b>	\$11,800,000	County & City Districts	141	1,578	*823,783	\$3,387	\$14
<b>VIRGINIA</b>	Capital Loan Program	Municipal Districts	135	1,761	985,031	\$4,553	0 - local only
<b>WASHINGTON</b>	\$200,000,000	Municipal Districts	296	1,852	805,919	\$4,570	\$248
<b>WEST VIRGINIA</b>	\$84,250,000	County and Regional Districts	55	1,084	339,040	\$4,234	\$248
<b>WISCONSIN</b>	Varies - tied to operating funds	Independent Districts	429	2,002	*772,363	\$5,210	-

\* National Center for Education Statistics; Digest of Education Statistics 1989-25th Edition; U.S. Dept. of Education, Office of Research and Improvement; NCES 89-643.

\*\* National Center for Education Statistics; Digest of Education Statistics 1990, 26th Edition; U.S. Dept. of Education, Office of Research and Improvement; NCES 90-643.

\*\*\* National Center for Education Statistics; Condition of Education 1990; U.S. Dept. of Education, Office of Research and Improvement.[based on average daily attendance]

\*\*\*\* This figure [Gross facilities budget/Gross enrollment] does not include local funds for facilities. This is an indicator of state support for facilities on a per student basis.

**STATE FACILITY PROGRAM  
FACILITY PLANS:**

**MATRIX II-2**

STATE	Do local school districts submit a long term facility plan to the state? Description		Do local school districts submit a maintenance plan to the state? Cycle		Inventory: System, Details, Success?		Rating system: Based on physical condition?
	No	N/A	N/A	Voluntary - for assistance	Yes- S.A.F.E. updated annually	Local districts rate themselves using state forms (SAFE)	
ALABAMA	No	Once-1984	No	Yes - first taken in 1986 - presently updating building conditions and characteristics	No	No	
ARKANSAS	Yes						
CALIFORNIA	Yes - Districts seeking funds must submit a plan.	Yearly	Yes - 5 year plan - updated annually	Single state team, comprehensive inventory is computerized	No	No	
DELAWARE	No	N/A	Annual submission - 3 year projection - only with capital needs projections	Yes- not detailed. Overseen by state development agency	No	No	
DISTRICT OF COLUMBIA	No	N/A	No	Yes - Annually, no details	No state ratings.	No	
FLORIDA	Yes-Required: each district does their own plan; state does not review.	5 years	No	Yes-Detailed computer inventory, every 12 months-building conditions and characteristics.	C1-statistics C2-look at, C3-no longer eligible for state funds		
GEORGIA	Yes -Detailed plan for all state funded renovations, modifications, and new construction.	5 years	No - program in development	State consultants visit every classroom: inventory every 5 years - conditions, characteristics, measurements.	Needs are prioritized by local education agencies with state guidelines		
HAWAII	Yes	As needed.	-	Existing characteristics, age, cost. Updated as needed.	No		
ILLINOIS	No	N/A	No	Yes-Annually. Building condition - construction type and sq. ft.	Compliance with health/life safety code		
MAINE	No	N/A	N/A	1974-No real system.	No		
MARYLAND	Yes - 5 year facility plan	Annually amended	Yes/ annual	Dept. of General Services surveys 100 schools/year. Districts to submit inventory with Facility Master Plan	Yes - a poor rating causes automatic repeat site visit		
MASSACHUSETTS	Yes - but only with application for state funds	Varies		Yes, but no details. In the process of expansion and improvement.	No		
MISSISSIPPI	Yes - but only with application for state capital improvement funds	Updated every 2 years	No	Yes-detailed. 24 mo. cycle	Yes		

**STATE FACILITY PROGRAM  
FACILITY PLANS:**

**MATRIX II-2**

<b>STATE</b>	<i>Do local school districts submit a long term facility plan to the state? Description</i>		<i>Do local school districts submit a maintenance plan to the state? Cycle</i>		<i>Inventory: System, Details, Success?</i>		<i>Rating system: Based on physical condition?</i>
	<i>Yes</i>	<i>No</i>	<i>5 years</i>	<i>No - only at monitoring</i>	<i>5 year plan</i>	<i>General through monitoring.</i>	
<b>NEW JERSEY</b>	<b>Yes</b>		<b>5 years</b>	<b>No - only at monitoring</b>	<b>5 year plan</b>	<b>General through monitoring.</b>	
<b>NEW YORK</b>	Long range facility plan is local but submitted to state with plan review for new construction or renovation	Yearly update	No		Database inventory done locally with yearly update, as per State standards	No	
<b>NORTH CAROLINA</b>	Yes - Long range plan by local Board of Education to state commission on school facility needs.	5 years	No		Yes - 1979 computerized & detailed. 12-15 schools inventoried per year on request. Site visits.	Yes- procedures & criteria.	
<b>OHIO</b>	No	N/A	N/A		Yes- details of condition & characteristics - 12 mo cycle.	No	
<b>PENNSYLVANIA</b>	Yes. - Detailed facility plans are required when districts request state reimbursement for new construction or renovation.	5 years	No		Yes- details based on district judgement. - 12 month cycle.	No	
<b>RHODE ISLAND</b>	No	N/A	No		Yes. Basic characteristics. 12 mo cycle - LEA completes.	No	
<b>SOUTH CAROLINA</b>	No - Considering adopting one.	N/A	No		Varies- completed by Div of General Services; approximately 17 districts per year.	Yes	
<b>TENNESSEE</b>	Yes - Plan is being implemented on a pilot basis	To be determined.	No		No	No	
<b>VIRGINIA</b>	No	N/A	No		With construction or renovation. Microfilm	No	
<b>WASHINGTON</b>	Yes - Study and survey of facility needs, Planning and financial assistance available	6 years or for project approval.	-		Yes - database inventory, updates as needed - districts complete forms	Pending	
<b>WEST VIRGINIA</b>	Yes - Comprehensive facilities plan.	10 yr updated annually.	No		10 years. Detailed soft cost funds.	Scale of 1-5	
<b>WISCONSIN</b>	Beginning in 1992 Not yet implemented.	5 years	-		No	No	



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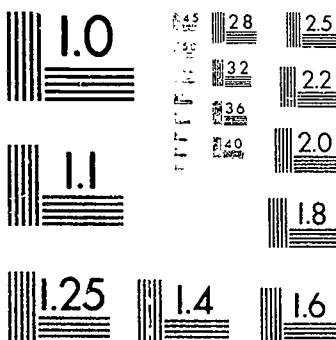
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**Centimeter**



**Inches**



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**STATE FACILITY PROGRAM**

**DOES THE STATE SET SCHOOL FACILITY CRITERIA FOR:**

**MATRIX II-3**

<b>STATE</b>	<b>State funded school maintenance?</b>	<b>Locally funded school maintenance?</b>	<b>New construction &amp;/or capital improvement?</b>	<b>Status of a building: when to replace or renovate?</b>	<b>Environmental concerns: e.g. lighting, asbestos, air quality, energy?</b>
	No	No	No	No	With new construction, as per building commission - re: codes Friable asbestos Energy conservation
<b>ALABAMA</b>	No	No	No	No	Lighting. asbestos, radon & lead
<b>ARKANSAS</b>	No	No	Yes	No	Lighting, Sound & Air
<b>CALIFORNIA</b>	Yes	Yes	Yes	Yes	Lighting, Sound & Air
<b>DELAWARE</b>	Yes - Guidelines only	Yes - Guidelines only	Yes - Guidelines only	Yes - if repair cost is greater than 50% of replacement costs	Asbestos Environmental quality
<b>DISTRICT OF COLUMBIA</b>	No	Yes	Yes	No	Yes
<b>FLORIDA</b>	No	Yes	No	Yes	Yes
<b>GEORGIA</b>	No	No	Yes	Renovation cost cannot exceed replacement cost by state formula	School size; Classroom size; Lighting; Radon; Lead
<b>HAWAII</b>	Yes	Yes	Yes	Age, condition and ability to provide program	Temperature control Dept. of Health OSHA Standards
<b>ILLINOIS</b>	No	No	Yes, if State funded project	No	As per health, life safety code
<b>MAINE</b>	No	No	No	No	As per BOCA, ANSI
<b>MARYLAND</b>	For systemic renovation only	Yes - complete maintenance plan	Yes - maximum gross sq. ft. per student	No	No
<b>MASSACHUSETTS</b>	No	No	Yes - state construction codes for public facilities.	Yes - School Building Assistance Act.	Yes - state building codes for municipal facilities.
<b>MISSISSIPPI</b>	No	No	No	No	No

STATE FACILITY PROGRAM  
DOES THE STATE SET SCHOOL FACILITY CRITERIA FOR:

MATRIX II-3

STATE	State funded school maintenance?	Locally funded school maintenance?	New construction &/or capital improvement?	Status of a building: when to replace or renovate?	Environmental concerns: e.g. lighting, asbestos, air quality, energy?
NEW JERSEY	No - minimum facility standards	No	No - from other agencies	No	No
NEW YORK	No	No	Yes - State level minimum standards	No	Environmental Impact Statement
NORTH CAROLINA	Only maintenance supervisors	Accreditation school unit; not all schools participate.	No	Yes - P.S. Standards, "Procedures and Criteria" Re: adequacy see appendix, p.22 - 24	Yes- general guidelines.
OHIO	No	No	No	Yes - based on facilities assessment rating system and cost estimates.	No
PENNSYLVANIA	No	No	Recommendations only.	Yes, based on technical assistance of state architects.	Yes - 4 national codes and guidelines.
RHODE ISLAND	Yes	Yes, established process required energy conservation plan	Yes	No	Yes
SOUTH CAROLINA	Yes	No	Yes	State recommends upon request	Yes
TENNESSEE	No	No	No	No	Yes - state education board rules and regulations.
VIRGINIA	No	No	No	No	Yes
WASHINGTON	No	Pending	No	Yes - Washington Administrative Code	Health Code, Uniform Building Code, energy conservation report (required for funding)
WEST VIRGINIA	No	No	Yes	Yes, based on funding ability.	Thermal, lighting, and acoustics
WISCONSIN	No	In process	No	No	Yes- in Dept. of Industry, Labor & Human Relations

**STATE FACILITY PROGRAM**

**DOES THE STATE MONITOR LOCAL SCHOOL DISTRICTS:**

MATRIX II-4

STATE	State funds to local school districts for capital improvements or new construction?	State funded maintenance program?	Local funds for maintenance?	Action for non-compliance with space, environmental criteria	Who monitors on a local/regional level?	
					Action for non-compliance with maintenance	
ALABAMA	No	No	No	Final local budget submitted as confirmation of expenditures	None	State School Architect/ State Building Committee
ARKANSAS	No	Audits are done on school district financial records.	No	Annual district budget submitted	None	None
CALIFORNIA	State system is lease purchase: funds are monitored: disbursed by state allocation board	State system is lease purchase: funds are monitored: disbursed by state allocation board	Yes - deferred maintenance and restricted maintenance.	no- by district	Restricted Maintenance Requirement Fund	Excess SF charged against new applications or projects &/or reduction of aid
DELAWARE	Yes - all PO's require approval	Yes - through the state accounting agency , all PO's require approval	Yes	Yes - if local funds are linked to state funds	None	Local Building Superintendent
DISTRICT OF COLUMBIA	Annual budget review by City Council	N/A	Yes	Yes - as one disrict	None	N/A
FLORIDA	Annual audits by state auditor	Plan review and approval; Audit process	No	Yes - annual Superintendent's annual fiscal report to DOE	discretionary action	Dir of Facilities or Assistant Superintendent for Facilities
GEORGIA	N/A	Construction visits, withhold portion of funds until construction complete	N/A	State audit, Biannual maintenance review	Non-standard schools	Superintendent or appointee, State Facility Section
HAWAII	State is expenditure agency	State, as local school district controls and identifies projects.	Within legislative appropriation	By district supervisors	-	N/A
ILLINOIS	N/A	Funds controlled and released by Capital Development Board (state agency) through a trust fund.	Facility standards, not maintenance	No	No	Regional Intermediate Superintendent

**STATE FACILITY PROGRAM  
DOES THE STATE MONITOR LOCAL SCHOOL DISTRICTS:**

**MATRIX II-4**

STATE	State funds to local school districts for capital improvements or new construction?	State funded maintenance program?	Local funds for maintenance?	Action for non-compliance with maintenance	Action for non-compliance with space, environmental criteria	Who monitors on a local/regional level?
MAINE	No	Construction: State Board of Education and statute - "School Building Construction Rules"	No	No	No	None
MARYLAND	N/A	Inspection	Indirectly	Summary Maintenance report submitted annually	None	Facilities manager on County level.
MASSACHUSETTS	N/A	Yes - monitored during construction & audited at completion.	Yes - facility standards only.	No	Yes- denial of state aid if physical damage occurred due to inadequate maintenance.	N/A
MISSISSIPPI	-	-	No	-	None	-
NEW JERSEY	-	-	No - only plan reviews.	No	-	Yes- 5 year grace period.
NEW YORK	N/A	Desk audits of final projections: cost report which amends claim of state aid reimbursement	No	Monitored by local boards of education	None	Aid to district can be withheld
NORTH CAROLINA	Only for maintenance supervisor	Inspection and audits by state dept.	No	Only through an accreditation process for those schools participating.	Yes - fined for waste water discharges and/or shutdown of facility	Plans reviewed by facility planners, assistant state superintendent, maintenance supervisors and the state DED.
OHIO	N/A	Adherence to guidelines involving district admin, bonding agent, architect, contractors and DOE	No	No	No	Yes - 1 year grace period or loss of its charter.

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**STATE FACILITY PROGRAM  
DOES THE STATE MONITOR LOCAL SCHOOL DISTRICTS:**

**MATRIX II-4**

<b>STATE</b>	<i>State funds to local school districts for maintenance?</i>	<i>State funded maintenance program?</i>	<i>Local funds for maintenance?</i>	<i>Action for non-compliance with space, environmental criteria</i>	<i>Who monitors on a local/regional level?</i>
<b>PENNSYLVANIA</b>	N/A	Yes - through audits and reimbursement for work .	No	Yes	Citations or closure from Dep'ts. of Labor & Industry; Health; & Environmental Resources
<b>RHODE ISLAND</b>	No	Yes - By general audit	Yes. By general audit	No	Withhold funding
<b>SOUTH CAROLINA</b>	Yes - audit project close-outs.	Yes - State office reviews requests. Finance office audits costs.	Cost is subject to audit.	No	Probation or withdrawal of accreditation.
<b>TENNESSEE</b>	No	Funds not significant. Rules & regulations are applied to all construction.	Yes	No	Withhold funds incl. teachers salaries.
<b>VIRGINIA</b>	Yes	N/A	N/A	No	Loss of accreditation
<b>WASHINGTON</b>	No	Yes - State audits/ accounting	Pending	Pending. statewide computerized accounting in place	State forces district to rebuild school/ more penalties pending
<b>WEST VIRGINIA</b>	No	Yes - Invoice reimbursement with project monitoring & review.	No	No	No - but may withhold funding.
<b>WISCONSIN</b>	Not an issue.	Not an issue.	Not yet.	No	Orders of compliance.

**SCHOOL MAINTENANCE SURVEY**  
**STATE FUNDING:**

**MATRIX II-5**

STATE	For school building maintenance:	For capital improvements or renovation:	For new construction:	State facility funding formula: Description	Does state funding attempt to equalize school districts based on financial need?	
					Gross maximum percent of construction cost funded by state	
<b>ALABAMA</b>	Yes	Yes	Yes	Set rate- \$58.50 per earned teacher unit	Not yet, case pending	Allocation on a per teacher unit basis
<b>ARKANSAS</b>	No	Yes	Yes	Revolving loan program	No	100% - but limit is \$300,000
<b>CALIFORNIA</b>	Yes	Yes	Yes	Matching share sliding scale	Yes	100%
<b>DELAWARE</b>	Yes	Yes	Yes	60% state/ 40% local matching share for projects	No	60% general and up to 100% for vocational and special needs
<b>DISTRICT OF COLUMBIA</b>	Yes	Yes	Yes	Formulas not used - estimated expenditures	No	100%
<b>FLORIDA</b>	Yes	Yes	Yes	Maintenance - sum of digits formula New Construction-base year plus growth in student-membership	No	100%
<b>GEORGIA</b>	Yes - through general operations	Yes	Yes	Annual district entitlements = [Ratio of district needs to total state needs] multiplied by legislative appropriation	Yes - based on per child wealth of district	95% max- State contribution ranges 75% -95%
<b>HAWAII</b>	Yes	Yes	Yes	By need	By need	75% or \$90 million
<b>ILLINOIS</b>	No	Yes - limited	Yes- limited	Grant index based on comparative wealth of district	Yes - limited	Matching share ranges from 20% - 70%
<b>MAINE</b>	Yes	Yes	Yes	-	Yes	Not known
<b>MARYLAND</b>	No	Yes - for systemic renovation	Yes	Local wealth as basis for percentages	No	69% / 75%
<b>MASSACHUSETTS</b>	No	Yes	Yes	Formula based on the average poverty valuation in each school district compared to the state average; and the average income in each district compared to the state average income.	Yes	90%/90%
<b>MISSISSIPPI</b>	No	Yes	Yes	Loan entitlements = [ADA x Annual Grant x 20] divided by [years x 75%]	No local repayment of annual grant	\$30/SF

SCHOOL MAINTENANCE SURVEY  
**STATE FUNDING:**

MATRIX II-5

STATE	For school building maintenance: or renovation:	For capital improvements construction:	For new construction:	State facility funding formula: Description:		Does state funding attempt to equalize school districts based on financial need?	Gross maximum percent of construction cost funded by state
				State facility funding formula: Description:	Does state funding attempt to equalize school districts based on financial need?		
NEW JERSEY	Yes - through general operations	Yes	No	Basic Foundation Aid, based on Quality of Education Act	Yes	-	-
NEW YORK	No	Yes	Yes	Building aid ratio using wealth formula	Yes- varies with district wealth	100%, 48% average	100%, 48% average
NORTH CAROLINA	Yes	Yes	Yes	Grants to cities - based on per pupil wealth and per capita income	Yes- based on the county tax base, per capital income, and any critical non-school need.	Ratio of 1.3 (Local:state) max =75%	Ratio of 1.3 (Local:state) max =75%
OHIO	No	No	Yes	Funds appropriated by code - greatest % pupils to be housed	Yes	100%/100%	100%/100%
PENNSYLVANIA	No	Yes	Yes	Yes	Yes- measure relative wealth.	100% of the relative wealth of school district.	100% of the relative wealth of school district.
RHODE ISLAND	Yes	Yes	Yes	Matching share ratio adjusted by equalization formula.	Yes - through equalized weighted assessed valuation in funding formula.	84% max average 38%	84% max average 38%
SOUTH CAROLINA	Yes	Yes	Yes	Per pupil basis	No	100%/100%	100%/100%
TENNESSEE	Yes	Minimal	Minimal	Per pupil basis appropriated annually	No	N/A/.1%	N/A/.1%
VIRGINIA	Yes	Yes	Yes	Operation and maintenance funded on per pupil basis	Funds based on district capacity to pay	0% - loans available.	0% - loans available.
WASHINGTON	Yes	Yes	Yes	Based on district's ability to provide and enrollment need	Matching ratio adjusted to district wealth	80%, from 20% -80%	80%, from 20% -80%
WEST VIRGINIA	No	Yes	Yes	Review team - prioritizing formula	Matching ratio based on district wealth	100%/100%	100%/100%
WISCONSIN	Yes - equalized aid only	Yes - equalized aid only	Yes - equalized aid only.	Based on district property value and number of students	yes	80%/80% 0-80% range	80%/80% 0-80% range

**SCHOOL MAINTENANCE SURVEY  
STATE FUNDING:**

**MATRIX II-6**

STATE	Does the state allow lease -purchase arrangements?	Number of districts using lease-purchase	Does the state determine or restrict lease -purchase contracts?	Are state funds allocated by reimbursement or direct appropriation?

				Funding for specific environmental needs: asbestos, lighting, energy, air, etc.

ALABAMA	Yes	Many for land, Transportation	As for long term debt	Direct appropriation	No
ARKANSAS	Yes- 4 years	Not available	Yes	Direct appropriation	No
CALIFORNIA	Yes	800 districts	Yes - 1986 L-P bond law	Both	Asbestos
DELAWARE	Yes	2 or 3	No	Direct Appropriation	Asbestos
DISTRICT OF COLUMBIA	No	N/A	N/A	N/A	Yes
FLORIDA	Yes	11	Yes - local discretionary levy up to 2 mills for capital outlay. Debt service not to exceed 1/2 of that millage	Direct	Yes
GEORGIA	No	N/A	N/A	Reimbursement - Direct under special circumstances	Energy conservation Asbestos
HAWAII	No	N/A	N/A	State is school district	Yes
ILLINOIS	Yes	Unknown	Regulated by statute	Direct funding after local share is used	No
MAINE	Yes - new construction	None presently - new programs start this year	Yes - limited to terms of agreement, state technical agency approvals, and application for permanent facilities within 2 years.	Combination of both	Yes
MARYLAND	Yes	1 district	No restrictions	N/A	Asbestos - when part of state funded C.I.P.
MASSACHUSETTS	No	N/A	N/A	Reimbursement, but maintenance is a local responsibility.	Yes

SCHOOL MAINTENANCE SURVEY  
**STATE FUNDING:**

MATRIX II-6

STATE	Does the state allow lease -purchase arrangements?	Number of districts using lease-purchase	Does the state determine or restrict lease -purchase contracts?	Are state funds allocated by reimbursement or direct appropriation?	Funding for specific environmental needs: asbestos, lighting, energy, air, etc.

MISSISSIPPI	Yes	4 districts	By competitive bid	Direct appropriation	Yes
NEW JERSEY	Yes	30 - 40	Public Hearings required	Reimbursement	No
NEW YORK	Yes	None, due to miscalculation in guidelines	Effectively prohibited.	Reimbursement	Asbestos
NORTH CAROLINA	No. Considering one.	1	No	Combination of both	Engineering services
OHIO	No	N/A	N/A	-	Yes
PENNSYLVANIA	No	N/A	N/A	Reimbursement for capital improvements only.	Yes- energy conservation.
RHODE ISLAND	Yes	1 (modular)	State lease	Reimbursement	Yes
SOUTH CAROLINA	Yes	2	No	Funds dispersed on a monthly schedule	Yes
TENNESSEE	Yes	0	As per laws.	Direct funding	No
VIRGINIA	No	N/A	N/A	Reimbursement	Loans
WASHINGTON	No	N/A	N/A	Direct appropriation	No
WEST VIRGINIA	No	N/A	N/A	Combination of both	No
WISCONSIN	Yes	2	In court.	Reimbursement	No

**STATE FACILITY PROGRAM  
STAFF:**

**MATRIX II-7**

STATE	Total State Facility Staff	Of these, number addressing maintenance?	Of these, number addressing inventory and 5 year plan	Number placed regionally
ARKANSAS	4	3	3	0
CALIFORNIA	18 - 20	1	Another agency	1
DELAWARE	2	1	0	
DISTRICT OF COLUMBIA	N/A	N/A	0	
FLORIDA	94	1	75	20
GEORGIA	18	5	15	9
HAWAII	10	1 - in another agency	1	7
ILLINOIS	11	0	4	0
MAINE	3	0	7 part time	0
MARYLAND	19	4	2	0
MASSACHUSETTS	5	0	2	5 part time
MISSISSIPPI	4	0	1	0

STATE	Total State Facility Staff	Of these, number addressing maintenance?	Of these, number addressing inventory and 5 year plan	Number placed regionally
MISSOURI	1	1	1	0
NEW JERSEY	20	0	0	0-County Office.
NEW YORK	28	1	1	0
NORTH CAROLINA	49	15	20	1
OHIO	3	3	3	0
OKLAHOMA	13	2	2	0
PENNSYLVANIA	9	0	0	0
RHODE ISLAND	3	3	1	0
SOUTH CAROLINA	7	7	0	0
TENNESSEE	5	5	5	3 of 5
VIRGINIA	450	10	3	0
WASHINGTON	7	0.6	0.5	0
WEST VIRGINIA	5	0	3	0
WISCONSIN	1	0	0	0

**MATRIX III:  
NEW JERSEY  
SCHOOL DISTRICT  
MATRIXES**

ARCHITECTURE AND BUILDING SCIENCE  
**NEW JERSEY INSTITUTE OF TECHNOLOGY**

## PROFILES OF DISTRICTS INTERVIEWED:

### MATRIX III-1

District	District Factor Group	Number of schools in district or Number of districts in county	Organization of schools	Enrollment projections	Reported condition of the schools	Current Facility issues
URBAN # 1	A	84 schools	Elementary Middle High schools	49,823 Increasing	Poor to good	Overscrowing insufficient maintenance, oil tank removal
URBAN # 2	A	34 Schools	Elementary Middle High schools	18,819 Increasing	Improving to good	Roofs, boilers, alarm systems,electrical update
URBAN # 3	A	6 Schools	4: Elementary 1: Middle 1:High school	2,834 Stable	Varies - not bad to poor	Litigation over new school
SUBURBAN # 1	I	8 Schools	5: PK - 5 2: 6 - 8 1: 9 - 12	3,664 Stable	Good - but falling behind in the last two years	Mandated small group spaces, asbestos
SUBURBAN # 2	I	12 Schools	8: Elementary 2: Middle 2: High school	6,024 Decreasing	Generally good	Substandard spaces, plan approval
SUBURBAN # 3	I	20 Schools	PK - 12 2 High schools	9,996 Decreasing	Good	Agency regulations, licensing, underground tanks
SUBURBAN # 4	D	11 Schools	PK - 12	9,272 Increasing	Good	Roof repairs, security
RURAL # 1	A	3 Schools	1: K - 2 1: 2 - 4 1: 5 - 6	1,633 Increasing	Poor to good	Asbestos,population growth,replacement vs. renovation
RURAL # 2	C	3 Schools	1: K - 4 1: 5 - 8 1: 9 - 12	1,623 Stable	Inadequate	Space/ catch up maintenance
RURAL # 3	G	2 Schools	2: High Schools	2,250 Stable	Good	Budget deficits, preventive maintenance
COUNTY # 1	N/A	11 Districts	N/A	43,528 -	-	Lease purchase regulations
COUNTY # 2	N/A	20 Districts	N/A	31,981 Rapid growth	Good to poor	Rapid enrollment, plumbing violations
COUNTY # 3	N/A	31 Districts	N/A	23,165 Stable, slight growth	Not meeting code	Agency regulations, regionalization, resource pooling

New Jersey School District Matrix  
**PLANNING:**

MATRIX III-2

District	Perceived usefulness of Facility Master Plan for district planning purposes	How is the Facility Master Plan used by the district?	Consultants used in the development of the Master Plan	Feedback from the County or State on the Facility Master Plan	Relationship with the County and State offices	Perceived usefulness of the Maintenance Plan for district planning
URBAN # 1	Not followed because it requires funding	Not used	Developed in house with one consultant	No comments	None	Due to understaffing, crises divert operations from plan
URBAN # 2	Active document	Budget development	Outside consultant used	Monthly meetings	Technical assistance sought after	Used as working tool - updated annually
URBAN # 3	Not useful	Not used as a working document	-	None; but have had feedback previously	Assistance seldom sought after	Used as a working tool
SUBURBAN # 1	-	General planning	Done entirely in-house	Never	Very little interaction	Used frequently and revised annually
SUBURBAN # 2	Good Planning Tool	General planning	-	Never	Antagonistic	Used frequently and revised annually
SUBURBAN # 3	Valuable	Budget justification, general planning	Architect - projected facility needs, inventory	Never	Good working relationship	Very useful working document
SUBURBAN # 4	Effective tool, valuable	General planning, budget	Consultants used for enrollment, demographic and facility projections.	Received feedback from both County and State offices	Good working relationship	Useful but costs are not realistic
RURAL # 1	Valuable	Plan approval, budget justification	Consultant used	Never	Good working relationship	Used as a working tool, costs are unrealistic
RURAL # 2	Superintendent just completed first plan	Use not yet known	Architect - projected facility needs, costs	Not known	Good working relationship - County office understaffed	Plan is very minor - painting and filter schedule
RURAL # 3	Valuable	Planning and plan approval	Consultant completed entire plan	Never	Good working relationship	Used as a plan, costs are unrealistic
COUNTY # 1	Not valuable	Not used enough in county - county office encouraging	Consultants often complete entire plan	County seldom makes recommendations	"Hands on" approach	Reviewed annually
COUNTY # 2	Valuable	Not reviewed for substance by county	Varies	County rarely makes recommendations	Very good - problems rare	New recommended model
COUNTY # 3	Valuable	Budget justification, plan approval	Architects Cost Consultants Statisticians	County makes recommendations frequently	Very good - problems rare	New recommended model being followed

New Jersey School District Matrix  
**PLANNING:**

MATRIX III-3

District	Are facilities inspected annually?	Have other agency regulations caused problems with facility planning?	Number of new facilities or Number of recent school closings?	Technical Assistance sought from County offices	Technical assistance sought from other agencies or organizations	General suggestions about the state facility program
URBAN # 1	Yes, required by State	Yes	Elementary addition in plan review	None	Yes	Reexamine substandard system Improve plan review
URBAN # 2	Monthly reporting system	No	New 600 student elementary	Yes	Outside consultants supervising specific projects	-
URBAN # 3	Yes	Yes - holding up progress	1: new 1: approved but held in litigation considering portables	More assistance than previously	-	Improve plan review Certify facility managers
SUBURBAN # 1	No	-	-	Little	Less state action County qualified contractor pool	Fund new regulations More state involvement
SUBURBAN # 2	-	Yes	several closings	Little	PSE&G Honeywell Exemptions for licensing fees Fund regulations	
SUBURBAN # 3	Yes - voluntary, done by Maintenance Supervisor	Yes	6 school closings	Agency regulations code issues	NJIT - energy Cycom - lighting	
SUBURBAN # 4	-	No	0	Replacement evaluation	Increase reg's on maint. plans Eliminate budget voting	
RURAL # 1	Yes	Yes	1: new school 1: planned	Code issues new construction	-	Fund asbestos
RURAL # 2	No	Conflicting requirements	1: addition	Frequent: additional walk-through request	Insurance, safety, Fire marshall	Regionalization
RURAL # 3	No	Conflicting requirements	0	Yes	Insurance	Eliminate budget voting More County Business Administrators
COUNTY # 1	-	-	-	Construction plans	N/A	Annual approval of 5 year plan and Maintenance Plan
COUNTY # 2	-	Not major problem	Many projects	-	N/A	Revolving loans for maintenance
COUNTY # 3	Voluntary, unless level 3	Yes - major source of problems	15 new projects - various stages	Daily - mostly about agency requirements	N/A	More state control, training programs

New Jersey School District Matrix  
**MONITORING:**

MATRIX III-4

District	District's view of State monitoring process	Has district had difficulties in meeting monitoring requirements?	Usefulness of Premonitoring	Does facilities budget fluctuate in relation to monitoring process?
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				Other agencies (State or Federal) which have recently monitored district	Current Monitoring Level: If Level 3, is criticism facility based?	Is there certification of sub-standard space?
URBAN # 1	Tough requirements, often arbitrary	Yes, due to substandard spaces	-	No, budget is on needs basis	Lead, radon, asbestos, oil tanks (DEP) AHERA	Level 3 - for facilities
URBAN # 2	Monitored too often	Yes,	-	-	DCA; Dept. of Health; Labor Dept; AHERA	Level 3 -not for facilities
URBAN # 3	-	Yes- split sessions -automatic fail	-	-	DCA; Dept. of Health; Labor Dept; AHERA	Yes, due to overcrowded, split sessions
SUBURBAN # 1	Tough but fair	No major difficulties	-	No budget fluctuates with funding	Frequent - OSHA; Fire	-
SUBURBAN # 2	Too stringent, unyielding, not efficient	Yes	Bureaucratic disaster	-	OSHA; AHERA; Health; Fire	Worried about falling to Level 2
SUBURBAN # 3	1992 - expect fair process	No major difficulties in past	Valuable	Increased after pre-monitoring	DEP; OSHA; AHERA; Insurance	-
SUBURBAN # 4	Thorough and fair	No	Very useful	Increased before pre-monitoring	OSHA; Federal Handicapped; EPA; DEP	-
RURAL # 1	Thorough and fair	No major problems	Extremely valuable	Increased after pre-monitoring	OSHA; AHERA; FIRE; EPA; DEP	-
RURAL # 2	County works with district - fair	Failed a number of key areas	Extremely valuable	Increased 1 year before pre-monitoring	OSHA; Fire; EEO; Accessibility	Yes
RURAL # 3	Tough and thorough, but fair	No	Very helpful, most problems resolved in this period	-	DCA; DEP; AHERA; OSHA; State Facility Planning Board	-
COUNTY # 1	Monitoring is enforcer	Districts don't maintain	-	-	N/A	-
COUNTY # 2	Fair - work with districts	Most districts ok - best record in state	Budgets generally fluctuate	-	N/A	-
COUNTY # 3	Fair - work with districts	Yes - many districts	Very useful process	Increased after pre-monitoring	AHERA, DCA, DEP, OSHA, Fire	If plan exists, county will pass

New Jersey School District Matrix  
**FINANCING:**

MATRIX III-5

District	Does district(s) have resources for adequate maintenance?	Recent bonds passed to fund maintenance or renovation projects	Contingency allowed in district financing strategy	Number of budgets defeated in recent years	Impact of budget defeats on maintenance and capital programs		Other sources of funding or measures to conserve funds
					Use of lease purchase agreements	N/A	
URBAN # 1	No	Capital Improvement and New Construction	5% contingency budgeted	No defeats	N/A	-	-
URBAN # 2	Not totally	-	-	-	-	-	-
URBAN # 3	No	Only for new schools	None	12 years in a row	Arbitration by commissioner almost every year	-	-
SUBURBAN # 1	Yes	Currently considering maintenance bond	-	-	-	Not used	Funds from Johns Manville; material longevity; energy conservation
SUBURBAN # 2	No	Considering maintenance bond	Surplus fund in general budget	Continual defeats	Severe impact - Parents advocacy group started	Not used	-
SUBURBAN # 3	No	District Debt Free - considering maintenance bond	Current expense budget - small	Continual problem	Caused many maintenance deferrals	Not used	Funds from Johns Manville; Grants from PSE&G; USDOE; Honeywell project
SUBURBAN # 4	Yes	Current maintenance bond	Fluctuates greatly from year to year	Often	Caused deferred maintenance projects	Not used	Lighting and energy conservation
RURAL # 1	No	District prefers lease purchase	-	few defeats - Strong parental support	Little	Used in new school, successful	Modular construction and lighting conservation
RURAL # 2	no	Current maintenance and addition bond	None	Many defeats	Has caused maintenance deferrals	Not used	None
RURAL # 3	yes	Bond just passed for renovation and maintenance	4% of facilities budget for contingency	Many defeats - problem with regional district	Maintenance or facilities have never been cut	Views Lease Purchase as unethical	Energy conservation; materials longevity; County resource pool
COUNTY # 1	-	-	-	-	-	Yes	-
COUNTY # 2	most do	Most districts go to Lease Purchase	Varies greatly	Continual problem	May explain popularity of Lease Purchase?	Extensive use	Limited County resource pool
COUNTY # 3	many do not	-	Varies greatly	Best record less than 6 in 10 years.	Little	Just starting for small projects	Starting County resource pool

## INDEX: Materials Received From the Fifty States

### **ALABAMA**

1. Administrative and Financial Services: Area Allocation Table.
2. Site and Facility Enumeration.

### **ALASKA**

1. Rules of Florida State Board of Education. Educational Facilities, Public School and Community Colleges.
2. Florida Inventory of School Houses, 1989.
3. Florida Department of Education, Office of Educational Facilities \*1989 FISH\*. School Facilities Inventory.

### **FLORIDA**

1. Rules of Florida State Board of Education. Educational Facilities, Public School and Community Colleges.
2. Florida Inventory of School Houses, 1989.
3. Florida Department of Education, Office of Educational Facilities \*1989 FISH\*. School Facilities Inventory.
4. Florida State Facilities Report.
5. Office of Educational Facilities Contact Persons.
6. Maintenance Operation Guidelines, Florida Department of Education. Office of Educational Facilities.
7. Maintenance Training Series, Class No. 6, Staffing Maintenance Units and Contracting Maintenance Services.
8. Proposed Building Specifications, Draft Review.
9. Development of a Model for Post-Secondary Building Evaluations in the Florida School Districts and Community Colleges.
10. Educational Plant Survey, Guidelines for Florida Public Schools Educational Plant Surveys, Revised 2/90.
11. Educational Plant Survey, Martin County Schools, February, 1990.
12. Florida Inventory of School Houses.
13. Capital Outlay Manual. Office of Educational Facilities, June 1989.
14. Facilities Task Force, A Report to the Commissioner, February, 1990.
15. Facilities Performance Profile, 1988.

15. Florida Dept. of Ed. Maintenance and Operations Administrative Guidelines for School Districts and Community/Junior Colleges. January 1989.

5. Public School Construction Program, Administrative Procedures Guide, State of Maryland. July 1981.

**16. Construction Cost Worksheet.**

17. Florida Educational Facilities, 1989.

18. Florida Educational Facilities, 1988.

**ILLINOIS**

1. State of Illinois, Part 175, Efficient and Adequate Standards for Building Specifications for the Construction of Schools, February, 1989.
2. State of Illinois, Part 189, Efficient and Adequate Standards for Building Specifications for the Construction of Schools, February, 1989.
3. Development Board Authority for School Construction, Chapter 27, 782, State Government.

**KENTUCKY**

1. A Guide to the Kentucky Education Reform Act of 1990.
2. Supreme Court of Kentucky, Rendered: June 8, 1989.

**MARYLAND**

1. Maintenance Report: Public School Buildings, September 1989.
2. Comprehensive Maintenance, Plan FY-1990.
3. Comprehensive Maintenance Program, 1990.
4. Proposed Minimum Requirements for the Content of the Comprehensive Maintenance Plans.

**MASSACHUSETTS**

1. A Study of Needs for School Facilities, Pentucket Regional School District, August 1988.
2. Regulations Governing the School Building Assistance Act, Chapter 645 of the Acts of 1948, as Amended, Proposed FY 1991. School Facilities Services Bureau, Division of School Services, Massachusetts Department of Education.
3. Evaluation of the Preventive Maintenance Pilot and Considerations for the Development of a State-Wide Preventive Maintenance Program.

**MONTANA**

1. Montana School Accreditation, Standards and Procedures Manual, March 1989

**NEW YORK**

1. School Building Condition Evaluation, Training Support Materials for Architectural/Structural Inspection.
2. School Building Condition Evaluation, Training Support Materials for Electrical Inspection.
3. School Building Condition Evaluation, Training Support Materials for Mechanical Inspection.
4. Public School Fire Safety Report.
5. Manual for Public School Facilities Fire Prevention and Fire Inspections, 1988.
6. Heating and Ventilating Recommendations for New York State Schools, April 1964.
7. Facilities for School Library Media Programs.

8. Food Service Facilities, 1968.
  9. Art Room.
  10. Planning Building Facilities for Vocational Agriculture.
  11. Planning Facilities to Accommodate Continuing Education, 1958.
  12. Instruction Guide for Obtaining a Building Permit and Approval of Plans and Specifications by the Commissioner of Education.
  13. Selected Articles from the School Executives Bulletin Pertaining to Obtaining a Building Permit and Approval of Plans and Specifications by the Commissioner of Education.
  14. Guide to Administrative Procedures, 1977.
  15. Needs Assessment Report P.S. 24-Bronx, New York City School Building Condition Evaluation, December, 1988.
  16. Manual of Planning Standards, 1977.
  17. School Site, Standards•Selection•Development, 1976.
  18. Instruction Guide For Obtaining Permit and Approval of Plans and Specifications by the Commissioner of Education.
  19. Manual for Public School Facilities Fire Prevention and Fire Inspections.
- NEW MEXICO**
1. Sections 1,2 and 8 of the Public School Code. Section 8 is the first equalization formula in the country, passed in 1978.
- NORTH CAROLINA**
1. Issuing School Bonds, 1985.
  2. Better Schools for North Carolina, "School Facilities Finance Act of 1987".
- PENNSYLVANIA**
1. Public School Building Report, 1987-88.
- OHIO**
1. Guidelines for State School Building Assistance Projects, October 1, 1998
- MISSOURI**
1. Public School Building Report, 1987-88.
  2. School Construction Laws, Regulations, Standards and Procedures, June 30, 1988.
  3. Revised Plancon, Part A: Project Justification.
  4. Public School Facilities Planning and Construction Workbook, January 1976.
- TEXAS**
1. Public School Building Report, 1987-88.
  2. School Construction Laws, Regulations, Standards and Procedures, June 30, 1988.
  3. Revised Plancon, Part A: Project Justification.
  4. Public School Facilities Planning and Construction Workbook, January 1976.

5. Revised Plancon, Part D: Project Accounting Based on Estimates.
6. Revised Plancon, Part G: Project Accounting Based on Cost.
7. Revised Plancon, Part H: Project Financing.
8. Revised Plancon, Part I: Interim Reporting.
9. Revised Plancon, Part J: Project Accounting Based on FinalCosts.

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2. Statistical Tables 1988-89.
3. State of Rhode Island and Providence Plantations, Department of Environmental Management, Division of Air and Hazardous Materials, Latest Amended: September 24, 1987.

#### SOUTH CAROLINA

1. South Carolina School Facilities Planning and Construction Guide, South Carolina Department of Education, 1983.
2. Educational Trends in South Carolina, May 1990.

#### VERMONT

1. School Funding Formula
2. Guidelines for developing educational specifications
3. Guidelines for planning school construction
4. Capital Outlay Financing

#### VIRGINIA

1. School Building Regulations, School Plant Planning and Construction.

2. Standards of Quality, for Public Schools in Virginia, July 1987.
3. Standards for Accrediting Public Schools in Virginia, July 1988.

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